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California's Computer Magazine

SEPT. 1988 • 47

MICROTIMES

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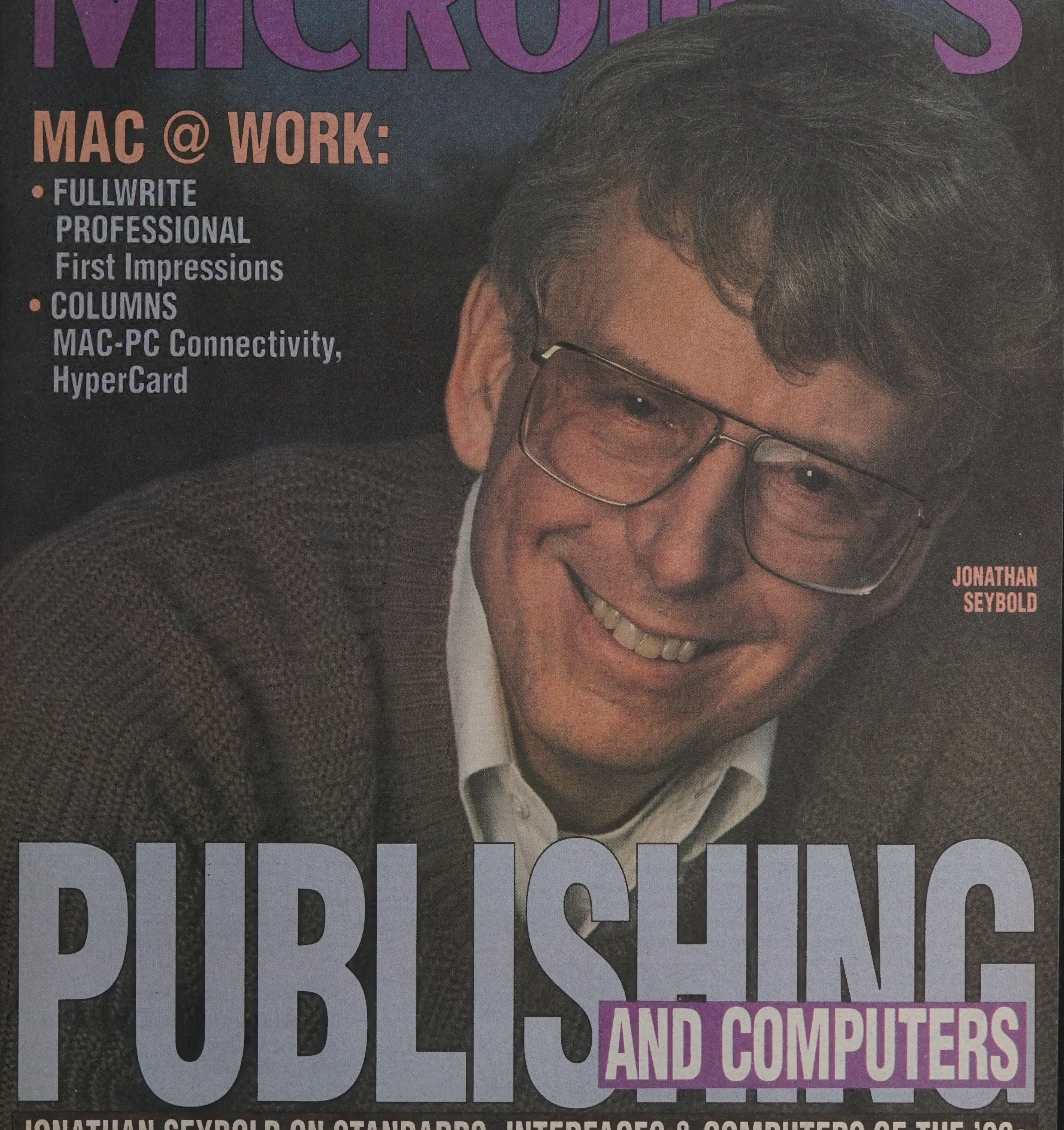

JONATHAN SEYBOLD

PUBLISHING AND COMPUTERS

JONATHAN SEYBOLD ON STANDARDS, INTERFACES & COMPUTERS OF THE '90s

Designed with you in mind

If you were to design the ideal computer system, it would be designed with your convenience, your needs and budget in mind. The style would be the same taste you have in other electronic components such as stereos, TV's and VCR's – the high-tech look.

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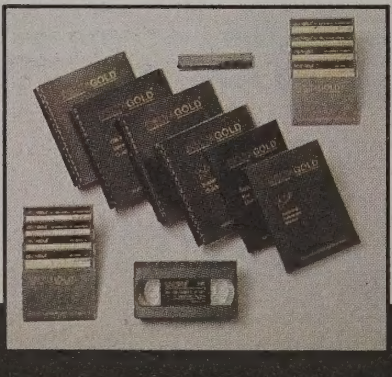

Specifications of the Standard System

Model	Elite	Prestige	Premier
Microprocessor	• 8 -bit Intel 8088 Turbo, 4.77 or 10.MHz	• 16-bit Intel 80286, 6 or 10 MHz	• 32-bit Intel 80386, 16 MHz
Co-processor	• Socket for 8087 match co-processor	• Socket for 80287 math co-processor	• Socket for 80387 math co-processor
Memory	• 512KB standard, socketed RAM (Zero Wait State), expandable to 768KB	• 512KB standard, expandable to 1 MB on motherboard	• 1MB standard on board RAM (Zero Wait States & fully utilized)
Storage Device	• One 5.25" 360K, half-height drive • Optional space for internal 3½" hard disk drive	• 5.25" half-height, 1.2MB drive • Space for 3 half-height storage devices • Optional space for internal 3.5" hard disk drive	• Standard 1.2 MB half-height drive • 40MB hard disk drive • Space for 5 half-height storage devices
Expansion Slots	• 4 expansion slots	• 8 expansion slots	• 8 expansion slots
Video Adapter	• Hercules equivalent, CGA, MGA, plantronics on motherboard	• MGA (Mono/color Hercules equivalent graphics card)	• EGA (enhanced graphics adapter card with Hercules capability)
Clock/Calendar	• Real time clock/calendar with battery back-up on motherboard	• Real time clock/calendar with battery back-up on motherboard	• Real time clock/calendar with battery back-up on motherboard
I/O Connections	• One serial communications port • One parallel port on motherboard	• 2 serial communications ports (RS-232C) • One parallel port	• 2 serial communications ports • One parallel printer port
Clicking Keyboard	• 84 key Selectric-style keyboard	• 101-key AT layout, Selectric-style	• 101 key AT layout, Selectric-style
Display Features	• 12" high resolution monochrome monitor with tilt swivel	• 12" high resolution monochrome monitor with tilt swivel	• 14" EGA color monitor with tilt swivel
Controller Board	• On motherboard	• Western Digital Winchester and floppy disk controller card	• Western Digital Winchester and floppy disk controller card

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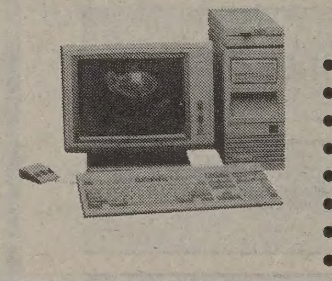

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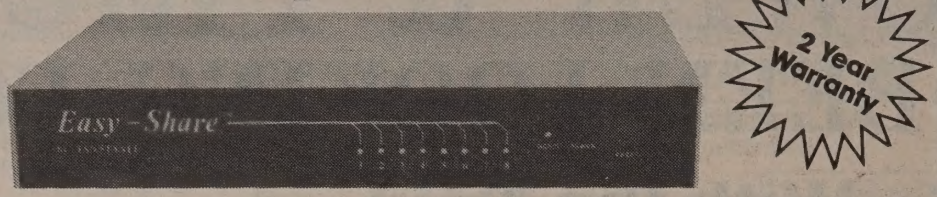

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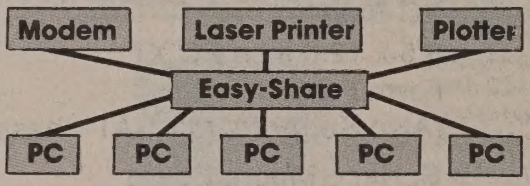

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August 13 Computer Show. Glendale Civic Auditorium. East-West Computer Shows. 1-800-344-3773.

August 13 San Fernando Valley Computer Swap. California State University Northridge, North Campus. Call Microshows at 1-800-433-7469 for more information.

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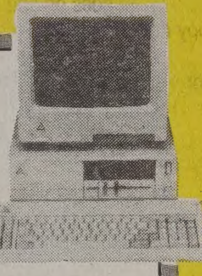

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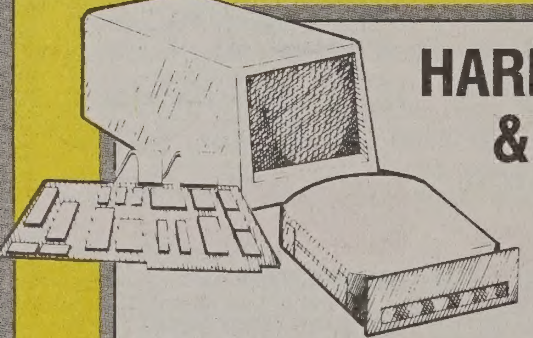

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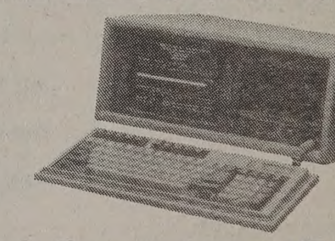

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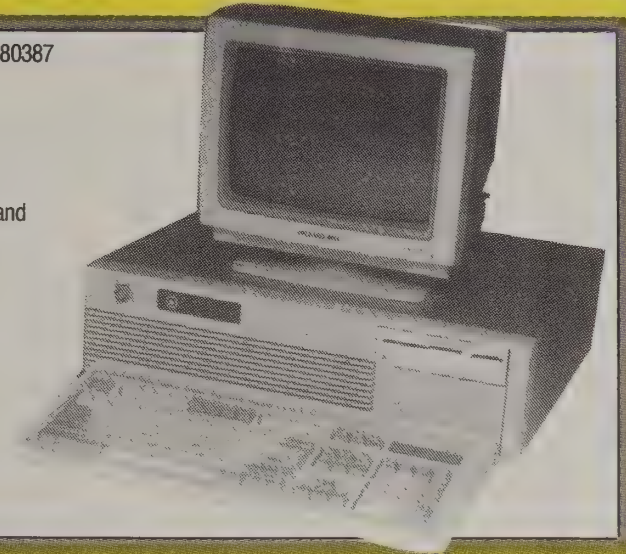

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August 30 – September 2 Structured Design & Programming Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

August 31 – September 2 Software Maintenance Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

September 3 Pasadena Computer Swap. The Pasadena Center, Pasadena. Call Microshows, 1-800-345-7389.

September 7 – 9 OIS '88. Washington Sheraton, Washington, DC. Optical Information Systems. Call Hannah Preston, 1-800-635-5537.

September 7 – 10 Software Publishers Association 4th Annual Conference. Washington, D.C. Call (202) 452-1600 for more information.

September 8 Trade Show Secrets Of The Pros Seminar (Pre-COMDEX Sales Seminar) Woodland Hills Holiday Inn. National Business Seminars, (714) 647-1900.

September 10 Orange County Computer Swap. Orange County Fairgrounds, Costa Mesa. Call Microshows, 1-800-345-7389.

September 10 – 11 MIDI Expo West. Anaheim Marriott, Anaheim. Music, Computers & Software magazine. Call Tony Scalisi, (203) 259-5734.

September 10 Trade Show Secrets Of The Pros Seminar (Pre-COMDEX Sales Seminar) Lincoln Plaza Hotel, Monterey Park. National Business Seminars, (714) 647-1900.

September 13 Trade Show Secrets Of The Pros Seminar (Pre-COMDEX Sales Seminar) Compton Ramada Inn. National Business Seminars, (714) 647-1900.

September 13–16 Digital Signal Processing: Techniques & Applications Course. San Diego. Call Integrated Computer Systems, 1-800-421-8166.

September 14 – 16 Software Requirements & Design Specifications Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

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September 20 Trade Show Secrets Of The Pros Seminar (Pre-COMDEX Sales Seminar) Bahia Hotel, San Diego. National Business Seminars, (714) 647-1900.

September 21 – 23 Software Quality Assurance & Testing Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

September 26 – 28 Knowledge Acquisition For Expert Systems UCLA Short Course. Call (213) 825-1901.

September 27 – 30. Computer Network Management & Control Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

September 27 – 30 Computer Network Architectures & Protocols Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

September 27 – 30 Systems Engineering For Integrated Hardware/Software Applications Course. Los Angeles. Integrated Computer Systems. 1-800-421-8166.

September 28 – 29 Interactive Video '88. Los Angeles Airport Hilton and Towers. International Interactive Communications Society (IICS). Call Ken Christie, President, (402) 488-3472.

October 1 – 4 Apple Expo Paris, France. Apple Computer France. Free booths for selected US firms. Contact Philippe Haustete, 12, Avenue del'Oceanie, Zone d'Activites de Courtaboeuf, Boite Postale 131, 91944 Les Ulis Cedex, France.

October 3 – 6 Fifth Annual International Electronic Imaging Exposition & Conference. World Trade Center, Boston. Institute for Graphic Communication. Call (617) 232-EXPO for details.

October 4 – 6 1988 And Beyond: Bus and System Solutions. Javits Convention Center, New York City. Call BUSCON (714) 669-9105.

October 8 Computer Swap Meet. LA County Fairgrounds, Pomona. Call RK Productions, 1-800-722-7927.

October 15 Computer Swap Meet. Long Beach Convention Center. Call RK Productions, 1-800-722-7927.

October 18 – 21 Structured Design & Programming Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

October 18 – 21 Digital Communication Systems: Design & Applications Course. Los Angeles. Integrated Computer Systems, 1-800-421-8166.

October 18 – 21 Systems Engineering For Integrated Hardware/Software Applications Course. San Diego. Integrated Computer Systems, 1-800-421-8166.

October 24 – 25 Electronic Messaging Conference. Boston. Call Michael F. Cavanagh, The Electronic Mail Association, (202) 293-7808.

October 25 – 28 Troubleshooting Datacomm & Networks: Hands-on Workshop. San Diego. Integrated Computer Systems, 1-800-421-8166.

As a community service, MicroTimes lists trade shows, seminars, and other special events in the Calendar of Events free of charge on a space-available basis. To improve the likelihood of your listing's timely inclusion, please make sure we have the necessary information no later than the first of the month two months before the cover date of the issue in which you'd like it to appear (i.e. the deadline for the March issue, on the street in February is January1). Send to: MicroTimes Calendar of Events, 5951 Canning St., Oakland, CA 94609.

News about user group meetings and other regularly scheduled activities should be sent to User Group Network at the same address.

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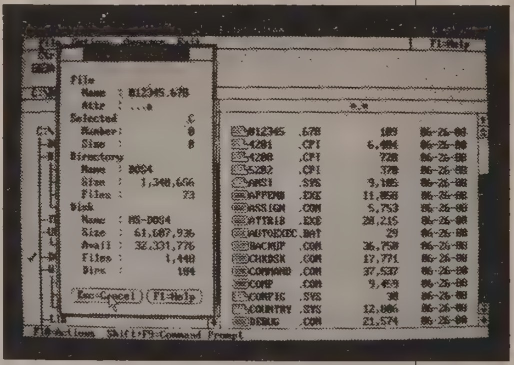

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Paul Hoffman is an industry analyst who has been covering microcomputer technology for ten years. He can be reached on USENET (phoffman@well) and MCI Mail (264-3171). He also writes popular microcomputer books.

Hewlett-Packard Responds To Apple's Suit

Setting the stage for major tests of the current copyright law as it relates to software and computer screen displays, Hewlett-Packard has counter-sued Apple, claiming that not only was Apple's copyright not valid, but that Apple misled the U.S. Copyright Office when it applied for copyrights for the Macintosh screen displays.

The countersuit brings up many interesting legal issues, such as whether Apple should have applied for patents instead of copyrights, how much of a display must be original enough to claim ownership, and, if Apple's copyrights are valid, whether having such copyrights might be considered a monopoly and therefore illegal under the Sherman Anti-Trust Act. Hewlett-Packard distanced itself from the agreement which Microsoft says protected it from Apple's suit, saying that Apple illegally coerced Microsoft to sign the agreement. The first major rulings in the case are expected this fall.

Lotus Delays Next Version Of 1-2-3, Kills Modern Jazz

Banking on the desirability of an application that runs under a wide variety of operating systems, Lotus has delayed the release of *1-2-3* version 3 until late fall and has stopped development of its already-announced *Modern Jazz* program for the Macintosh. *1-2-3* version 3 is expected to run under the MS-DOS, OS/2, Macintosh and UNIX operating systems. Lotus will also release a version of *1-2-3* for IBM mainframes, according to long-standing joint development plans between Lotus and IBM.

The new version of *1-2-3* will be able to address up to 32 megabytes of memory running under MS-DOS, according to Lotus. This means that people who need more memory for their spreadsheets will not be forced to move to OS/2 or a competing spreadsheet application. Lotus believes that MS-DOS will be the dominant operating system for many years and will base its development plans around it, not OS/2 or UNIX.

Modern Jazz, which was supposed to be available during spring this year, was killed off due to the potential for competition with the Macintosh version of *1-2-3*, according to Lotus employees. Many of the workers on the *Modern Jazz* project were reassigned to work on the Macintosh version of *1-2-3*, although many left the company after the project was canned so close to release.

'Zoomracks' Owner Threatens HyperCard Developers With Patent

Raising more than a few eyebrows, Quickview Systems, developer of PC-based *Zoomracks* software, has threatened developers of stackware for Apple's *HyperCard* with lawsuits if they appear to infringe on Quickview's patent on card-and-rack display of information. In letters sent to many stackware developers and ads taken out in Macintosh magazines, Quickview president Paul Heckel has claimed that his patent on the rack metaphor prevents *HyperCard* developers from displaying more than one card "as a rack" without paying him royalties. Many software developers have questioned his extension of "racks" to "stacks," and have said that they are ignoring his demands.

The *Zoomracks* program allows you to organize data on cards that you store in "racks" on the screen. You can see the top lines of the cards in the rack, much as you can see the names on timecards in a rack. The patent apparently covers the use of the rack metaphor.

HyperCard, however, only lets you view one card at a time. Although you can visually represent a stack of cards with a drawing, that drawing does not show the tops of the cards in the fashion that the rack that *Zoomracks* uses.

Many stackware developers said that they felt that Heckel was simply trying to cash in on the popularity of *HyperCard* and that, since their software did not resemble a "rack," they had no intention of signing any license with Quickview.

Micron And Atari Settle DRAM Suit

In an out-of-court settlement, Micron Technology and Atari have settled the suit Atari brought earlier this year. Atari had charged that Micron Technology had agreed to sell Atari DRAM chips at a low price and reneged on the contract. The terms of the settlement are confidential, according to both parties.

The DRAM situation is still critical, according to almost everyone in the computer manufacturing business. Atari claims that it's cut back on its intended production this year due to the lack of DRAM. According to police in Silicon Valley, DRAM theft and fraud have skyrocketed in the last few months. Apple has stopped filling developers' orders for DRAM for the foreseeable future, suggesting that they buy the memory modules they need on the open market. There are also widespread reports of stores removing DRAM chips from peripheral boards and putting them in computers.

IBM Rattles Sabers On RISC Chip Patents

IBM has begun sending letters to manufacturers of RISC chips indicating that it believes they may be infringing upon IBM patents. Although it is unclear what rights IBM owns under its RISC chip patents, many people in the industry feel that IBM may be

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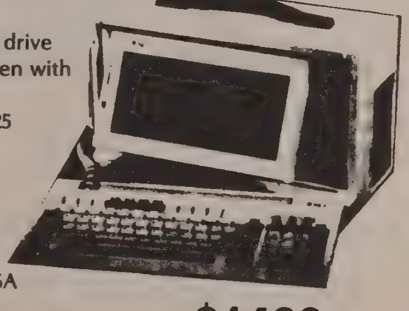

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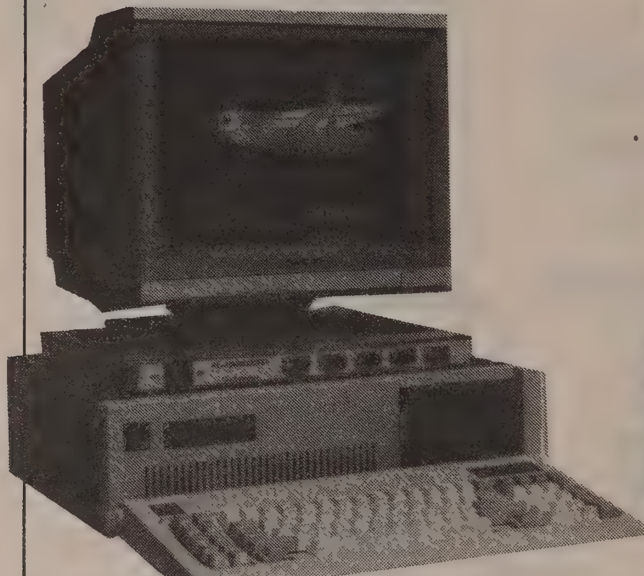

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overly reliant on early patents that would not stand up to a court test. IBM began producing RISC chips over ten years ago and has many patents that relate to the structure of the processor. However, the validity of a patent can be challenged, and many patents issued before a technology is well understood are later overturned by courts.

Although Sun Microsystems admits to having received the letter from IBM expressing "concern," Sun officials refused to say how they intended to respond. Other RISC chip manufacturers also would not comment on the letter.

Claris Acquires Nashoba Systems

Bolstering its line of Macintosh software, Claris (a spinoff from Apple Computer) recently bought Nashoba Systems, manufacturer of the best-selling *FileMaker Plus* program. Until the acquisition, Claris had no database management system for the Macintosh; now it has one of the most popular ones. Although *FileMaker* is not as powerful as high-end database management systems like *4th Dimension* and *Helix*, it costs much less. The newest version has multiuser network capabilities that allow many people to access the same database at the same time. Claris will repackage the system and begin selling it by the end of the summer.

PCW Communications Axes Macintosh Today

Macintosh Today, a popular newsmagazine devoted to the Macintosh, published its final issue last month. Although PCW Communications always intended to make *Macintosh Today* weekly, it never released regular weekly issues. PCW Communications also publishes *Macworld*, which it says is doing extremely well.

Macintosh Today had heavy competition from *MacWeek*, which was able to go weekly last year and was thus able to pick up many advertisers early on. Another problem that *Macintosh Today* faced was poor circulation: the free newspaper was only sent to a limited number of subscribers, and people applying for a subscription were never told whether or not they would be able to get the magazine. Many early subscribers had their subscriptions cut off in January without notice.

Apple Restructures Yet Again, Forms "Customer Satisfaction Group"

Without admitting to falling prey to California-speak, Apple has created a new department responsible for customer service, support and distribution called "Customer Satisfaction Group." However, the group will not be responsible for marketing; product marketing will be handled by the Research and Development Group, under the direction of Jean-Louis Gassee. Apple employees took the move with a fair amount of humor, given that Apple seems to have been in a constant state of reorganization for the last nine months. Although fewer people now know who their immediate supervisor is, most employees and financial analysts feel that putting the customer-oriented groups under one executive would reduce the amount of time it takes for a customer with a question or complaint to get it resolved.

Farallon Merges With WOS Data

Hardware and software firms often make joint marketing agreements but rarely merge. Countering that trend, Farallon Computing, makers of the PhoneNET wiring hardware for AppleTalk, and WOS Data Systems, makers of a multi-user accounting package and the *Timbuktu* network collaborative software for the Macintosh, recently merged and will continue under Farallon's name.

The merger of two small but popular Macintosh companies comes at a time when large corporations seeking a presence in the Macintosh market are buying smaller companies with successful products. PhoneNET is the most popular hardware wiring system for connecting Macintoshes due to its low cost, and *Timbuktu* is rapidly becoming more popular as a method for system administrators to solve user problems across a network by viewing an active copy of a user's screen. WOS Data will continue to operate from Lawrence, Kansas.

Windows/Presentation Manager Association Forms

Hoping to help push the use of Microsoft *Windows* and the OS/2 Presentation Manager, many major software companies have joined resources to form the Windows/Presentation Manager Association. The group will help support development of *Windows* and Presentation Manager software, as well as better support hardware that can be used with the environments. The non-profit group will also help retailers and other vendors to promote *Windows* and Presentation Manager software. The group will help corporate and end users to promote and support users of their software. WPMA, 617/277-9648.

Major Clone Maker Starts Leasing Program

Dell Computer, one of the largest retailers of PC and PS/2 clones, hopes to become one of the largest leasing companies with its introduction of equipment leasing division. Noted for its low prices and high performance computers, Dell now wants to be thought of as the complete solution for corporate customers. Many corporations lease their microcomputers in order to keep up on the technology and to take advantage of the tax benefits of leasing, and Dell could easily make a strong showing in this market by offering services similar to the other large leasing firms.

Dell also intends to undercut its competition by having lower-cost leasing. A 20 MHz AT-clone with VGA color monitor and 40 megabyte hard disk, printer and service contract would lease for less than $175 per month, according to the company. Dell Computer, 800/727-8000.

Borland Buys Spreadsheet Technology From Surpass

Borland announced its intention to beef up its popular *Quattro* spreadsheet by buying technology rights from Surpass Software, makers of the *Surpass* spreadsheet program. The acquisition includes the source code and engineering talents from the company, according to Borland. Borland will upgrade current *Surpass* users to *Quattro* for $50. The new version will have features from both packages, and will incorporate the underlying software techniques of both systems, according to *Surpass* developers. Surpass Software chairman Seymour Rubinstein was previously president of MicroPro, makers of *WordStar.*

Microrim Gives Developers More Ways To Distribute Applications

Taking advantage of Ashton-Tate's delay of *dBASE IV*, Microrim has made it easier for developers to distribute applications written in *R:BASE*. Microrim has started selling 5-user runtime libraries so that end users can run applications developed with *R:BASE* without having to own a copy of the pro-

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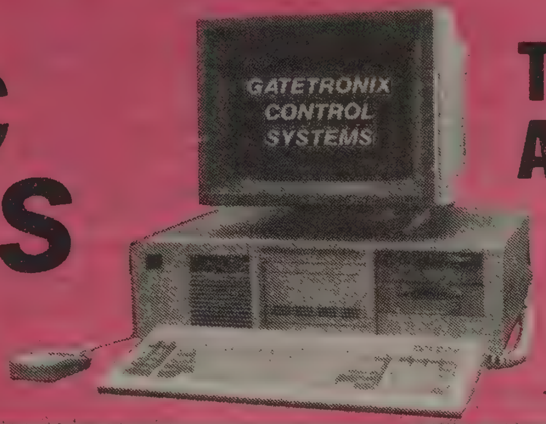

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gram. The company will also soon release a true compiler for *R:BASE* applications; the compiler will create .EXE files from applications, relieving developers from needing the run-time libraries at all. The compiler will be compatible with Microsoft languages so that programmers can create routines and libraries in other programming languages and combine them with R:*BASE* code. Microrim, 206/885-2000.

Adobe PostScript Logo For Printers

Trying to stem the tide of PostScript clones, Adobe Systems has begun allowing manufacturers to use its new logo on printers which use Adobe's PostScript interpreters. Adobe wants to differentiate between PostScript interpreters developed by other manufacturers and its own. The company has come under fire from smaller software manufacturers in recent months due to its high price on PostScript. Although there are no true PostScript clones on the market yet, many are expected within the next few months. Adobe hopes that purchasers will insist on the Adobe PostScript label from whichever printer manufacturer they buy. Manufacturers who have licensed Adobe's PostScript also hope to gain from such markings.

Product News

Microsoft Announces New Enhanced Versions

In an extremely active month for announcements, Microsoft upgraded its major operating systems and system software and made a new push into the still-active COBOL market. They also announced a new on-line technical information service run through the GEnie network.

MS-DOS version 4 will be available soon through hardware manufacturers and dealers. Its most-awaited feature is support for hard disks larger than 32 megabytes. In version 3 and previous versions of DOS, you had to split larger drives (which are now common on most AT-compatibles and 80386-based computers) into smaller partitions.

Version 4 also comes with support for the EMS 4 expanded memory standard that allows programs to use more that 640K of memory for users with special memory cards; it supports the IBM XMA expanded memory boards.

Microsoft has also included an MS-DOS command shell which is visually similar to Microsoft's Presentation Manager in OS/2. Microsoft hopes that this helps get users to migrate from MS-DOS to OS/2. Other new features include faster execution on various monitors and better support for international languages. The pricing on the new version (and any upgrade policies) are up to the individual hardware manufacturers.

The MS-DOS CD-ROM Extensions (MSCDEX) version 2 includes control software for both the original High Sierra file format as well as the new international standard version of that format, ISO 9660. This gives users greater flexibility if they use CD-ROM disks from more than one manufacturer. As part of the new standard, MSCDEX version 2 more fully supports mixing text, graphics and sound. The new extensions also support the Japanese Kanji character set.

The new versions of *Windows* feature faster execution, better use of available RAM memory and easier installation. Using a little-known feature of the 80286 CPU, Microsoft was able to redesign *Windows/286* to eke out an additional 50K of RAM if the computer has extended memory in it. With the additional memory, programs running under *Windows/286* run about 40% faster.

Windows/386 was improved to support the Hercules high-resolution monochrome adapters. Both programs are significantly easier to install now that they detect the type of hardware you are using as you run the installation program. Both programs also directly support many more printers and plotters, and have a better implementation of the LIM standard for extended memory.

COBOL version 3 now supports many dialects of COBOL and is certified by the National Bureau of Standards for compliance with ANSI 85 standard. Microsoft stressed that this version of COBOL is compatible with both mainframe COBOL languages from IBM as well as competing mini- and microcomputer implementations of COBOL. Version 3 runs under both MS-DOS and OS/2; the OS/2 version can handle programs that use up to 16 megabytes of memory. The programs produced by version 3 run up to ten times faster than those produced by version 2.

Microsoft also announced that its database of technical questions and answers on its products will be available on the GEnie electronic network. Microsoft customer support staff will also answer questions posed in the discussions in the Microsoft

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area of GEnie, as they do now on CompuServe. The database covers all of Microsoft's retail products, but not the operating systems or computer languages. Using the database will cost twice as much per hour as asking questions in the discussion, however. Microsoft stressed that this service is in addition to its standard telephone support. Since using GEnie at night is significantly less expensive than long-distance calls to Microsoft headquarters in Redmond, WA, they hope that many non-urgent problems can be solved by users on GEnie.

Intel Announces 386SX To Push 80836 Software Development

Hoping that more companies develop software specifically for the 80386, Intel released a new, low-cost version of its 80386 processor. The 386SX runs all the same software as the high-end 80386, but more slowly due to its 16-bit external bus. Intel estimates that computers using the 386SX will run about half as fast as the 80386, but will cost much less due to the lower cost of the CPU as well as the lower cost of the supporting chips needed to make a computer. The chip will be shipping in large quantities by the end of this year, according to Intel.

Operating system manufacturers have not spent much time developing operating systems and environments for the 80386 because it has been perceived as the very top of the microcomputer spectrum, and therefore not part of the mainstream. The existence of the 386SX will help move the chip more towards the center of the market, according to manufacturers who have already started developing computers based around the 386SX. The 80386 has the great advantage that it can emulate many 8086 computers running at the same time. A few operating environments such as *Windows/386* from Microsoft have taken advantage of that fact and allow users to independently run many programs without any special precautions.

Pyramid Announces New Mainframe UNIX Computer

Keeping the UNIX flame alive on the low end of the mainframe market, Pyramid recently announced its Series 9000-TA, a much faster version of its present line of high-end UNIX computers. The 9000-TA is aimed at the corporate UNIX market, which is dominated by database management system users. At the announcement of the computer, executives of the leading database management system companies debated which of their software package had the best performance. Although the ensuing argument turned the discussion away from Pyramid's powerful new RISC-based system, it showed that the DBMS market is still hotly contested in the UNIX world. The system sports a greatly improved I/O system and better data handling by the operating system.

IBM Announces Major New Mid-Range Computer Line

The long-rumored "Silverlake" system, a merging of IBM's popular System/36 and System/38 minicomputer lines, has been formally released as the AS/400 series. IBM intends this series, which initially has six models, to be its primary mid-range offering for at least the next ten years. The AS/400's operating system, called OS/400, is fully compatible with IBM's Systems Application Architecture (SAA), and can thus be integrated easily in networks with mainframes and PCs that run OS/2. The new computers will run almost all of the software that currently runs on the System/36 and System/38 lines.

The low end of the series, the B10 and B20 models, are about twice the size of the PS/2 and do not require any special air conditioning. They come with at least four megabytes of RAM and 630 megabytes of disk, are powerful enough to handle at least four users. They also come with built-in token-ring adapters so that they can be easily integrated into IBM networks. The B10 is small and inexpensive enough for IBM to push it as its smallest multi-user system, and it is unlikely that IBM will try to turn the high end of the PS/2 series into a multi-user system. This leaves a large gap that UNIX vendors with 80386- or 68020-based systems can fill in the small office market.

IBM's emphasis on SAA for the new OS/400 operating system shows that it is taking SAA seriously as its integrator over the next decade. The higher-end models in the AS/400 line will handle 50 to 100 users, making them an easy transition into the low end of IBM's mainframe series, the 9370 family, which already is compatible with SAA. IBM also stressed that the AS/400 models can be integrated as a file and disk server for PC-DOS based computers and will probably follow up with new PC-DOS programs that help integrate the two computers in offices.

In a move unique for IBM, over 1000 packages from other vendors were announced with the AS/

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400; traditionally, IBM only mentions their own software. Many of these packages were communications packages for linking the AS/400 to microcomputers and computers of other manufacturers. Like IBM's OS/2 Advanced edition, the OS/400 operating system will come integrated with an SQL database management system and communications software. It will also come with an extensive online documentation and question-and-answer system, as well as a menu-driven user interface.

Motorola, Intel Announce Faster Math Coprocessors

Both of the major manufacturers of CPUs announced faster versions of their math coprocessors. Math coprocessors allow software that uses them to run at much higher speeds. Motorola announced that its 68882, which works in conjunction with Motorola's 68000 family of CPUs, is now available in a 33 MHz version. It is plug-compatible with Motorola's 68881, so users can simply unplug the old version and insert the new one. The 33 MHz 68882 costs $708. Intel announced that it is now selling its 25 MHz 80387 coprocessor, which works with the Intel 80386, in the retail market; until now, it had only been available to hardware manufacturers. The 25 MHz 80387 costs $1395. Intel also announced approximately 10% reductions in the retail price of the rest of its line of math coprocessors.

Migent Announces 1-2-3 Database Add-In

Migent's latest addition to its line of database management system products, *Summit*, allows *1-2-3* users to access data from any *Emerald Bay* database on a network, according to the company. The *Emerald Bay* line gives multiuser access over a network to various data applications. *Summit* lets *1-2-3* users retrieve and update data without leaving their spreadsheet. In addition, it lets users import data from databases as cells in a spreadsheet. The program adds commands similar to Lotus' internal commands and is thus easier to learn than many other *1-2-3* add-ins. Migent, 702/832-3700.

Commodore To Bundle GEOS with C64 and C128 Disk Drive

Starting immediately, Commodore will give away a copy of the *GEOS Desktop* program from Berkeley Softworks with every Model 1541 drive they sell. GEOS (Graphical Environment Operation System) has become one of the most popular pieces of software for the Commodore system, and its inclusion with every disk drive signals that it has become the standard for user environments.

Berkeley Softworks will continue to sell applications that run under GEOS, such as *geoWrite* and *geoPaint*. The agreement allows Commodore to bundle an operating system with the majority of its systems, much as business computer manufacturers do. Although Commodore has invested more heavily in its Amiga product line in recent years, the C64 and C128 continue to bring in significant revenue for the company. ☐

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REALIZABLE FANTASIES • BY JIM WARREN

New Life For Old Hardware

Here is more intellectual shareware—ideas for those visionaries and adventurers who convert the present into the future.

Recycling Revisited

Older peripherals and subsystems offer significant utility and entrepreneurial opportunity:

Older hard disks—almost free due to their advanced age—can still provide significant upgrades to current floppy-only systems. This particularly includes floor-mounted mainframe disks and diskpacks—often with many-hundred megabyte capacity and high speed.

Many owners of elderly micros have old 8-inch floppy disk drives, oodles of old 8-inch disks, old printers, old modems, old S-100 memory and interface boards, old Apples, old terminals, etc.—shelved in old closets covered with old dust. Yet most of them could be as useful as they once were—back in the dark ages when they were state-of-the-art ... six or eight years ago.

All that's needed are interfaces to connect them to newer machines—hardware and software. Consider some possibilities:

"Obsolete" 8-inch floppy disks are almost free, but could still provide file backup for underprivileged computers.

S-100 computers and similar systems could become special-purpose controllers—e.g., printer buffers/controllers, or RAM-disks for current micros. They could certainly be arbitrarily sophisticated terminal controllers for those current PCs with infuriatingly limited RS-232 ports.

Once hardware interfaces exist, software is needed to read and write the older file formats of these antiques—software which would also allow easy transfer of data between new and old machines.

How to market 'em? Who needs 'em? Flea markets, small businesses more concerned with low cost than latest-generation functionality, unwealthy schools, forever financially strained nonprofit organizations, real "personal" computer users (those who don't deduct their computer equipment on their tax returns), the much-mentioned "computer poor" of this country and others, etc.

Tiny-Cost Site Licenses For Vocational Instruction And Cost-Effective Promotion

Great markets from little seedings grow:

Most software publishers studiously ignore a potent promotional opportunity for mainline production software packages—text editors, spreadsheets, databases, etc.

Numerous educational institutions would offer training in use of such software, if they could afford classroom-quantity multiple copies of it. This is particularly true for budget-strained community colleges, vocational institutions and high schools offering vocational courses.

Yet myopic publishers fail to recognize the dope dealer's dictum so profitably followed by IBM in the early '60s—"the first fix is (nearly) free." At the time, IBM was an also-ran in computing, far behind "big" companies such as Burroughs, CDC and Honeywell. Then, IBM chose to almost give its computers to schools and colleges—charging little more than a dollar a year to institutions willing to offer their students courses in using IBM machines.

And—surprise!—one to four years later, their graduates entered business and industry, newly trained in the "latest computer systems," and urging their less-knowledgeable managers to buy IBM gear, the gadgets they knew best how to use.

Software publishers: Offer almost-free site licenses for bulk copies of software used in vocational courses. It is good business, cost- effective promotion (account for it as an advertising expense) and is a positive contribution to society and the future.

Instructors and institutions: Rough-draft vocational programs and short-courses to teach major microcomputer applications—but avoid being product-specific. Submit them (and maybe a copy of this article) to a publisher of worthwhile software. Propose to implement the course using their software, if they provide essentially-free site licenses for instructional users. If they don't see the mutual benefit of such a fair exchange, seek a more enlightened competitor—one who does plan to remain in business.

Human Factors For Cruisers And For Parapalegics

Let's standardize automobiles' "cruise control"—a computer of sorts. Intuition and physiology might reasonably support this design:

A self-centering lever can easily be moved five directions—up, down, pull back, push forward, and press inward toward the steering column. Buttons are unnecessary, except perhaps a press-inward button on the end of a 4-way lever.

Since pushing forward is the most "difficult" action, safety dictates it should be the function that turns cruise control on, or re-enables it after temporary cancellation.

Pressing inward is easy and has no intuitive meaning, so let that cancel cruise control—one push to temporarily cancel; two pushes to turn it off entirely.

Pulling back is the easiest motion—clutching the fingers. Let pulling back slightly cancel cruise control temporarily—just as does pressing inward or pushing on the brake pedal (used by the more athletically inclined).

Let pulling back more—"whoa!"—begin to apply increasing pressure on the brakes, just as occurs when the brake is pressed. (The Gods never dictated that brakes be underfoot—it's only tradition born when leg muscle provided braking power.)

Finally, intuition implies that up increases speed; down decreases it.

With this one lever, cruise control is accomplished—and incidentally, feet become unneeded in a shiftless vehicle. (Clip and mail to your favorite auto maker.)

This design is herewith placed in the public domain, before some lunatic tries to patent it and sue everyone over its "look and feel." (Consider how the auto industry would have developed if one automaker claimed ownership of a stick-shift's "H" pattern; another owned the accelerator-on-the-floor concept, etc.!)

Myopic software publishers fail to recognize the dope dealer's dictum so profitably followed by IBM in the early '60s—"the first fix is (nearly) free."

Briefs Of The Month

Fantasy to be fabricated: We may see noise-cancelling mufflers that sense a noise-source's sound waves and create equal and opposite waves—thus "crushing" the original waves. (This gives new meaning to Californians' "catch a wave" concept!) Perhaps huge diesels will soon whisper down freeways with their engines surrounded by monster stereo speakers. (Rumored by John Wakerly to be a serious research project in the nation's rust-belt.)

Dr. Wakerly is also the one we reported in June as observing that "u learn" is an anagram of "neural"—attribution that was amputated by the page-fitter's scissors.

Future Fantasies Flaunted

Some of the not-yet-done projects currently under review for the next several columns include:

- Effective political applications of micros—wherein the author has some practical experience;
- Providing personal computers with access to EarthSat and WeatherSat data, and some related applications (why should weather-casters have all the fun?);
- Issues surrounding telecommunications for the hearing impaired, including discussion of desired enhancements, and review of that significant market (suggested by John Pilge of Santa Cruz); and,
- Suggestions interrelating television, videos, captioning ("subtitles"), and subliminal (painless) teaching of reading—of English and otherwise (idea from Anne Herbert of Mill Valley).

Support Intellectual Shareware

To share solutions, send your provocative proposals regarding these topics or anything else to Jim Warren, Realizable Fantasies, 345 Swett Road, Woodside CA 94062. Attribution for published proposals will be given to their authors, unless anonymity is requested. ☐

Copyright © 1988 by Jim Warren. All rights reserved. *Jim Warren founded the West Coast Computer Faire, the* Silicon Gulch Gazette *and* Infoworld *newspapers, Video Initiative, and the DataCast proposal for broadcast-based paperless electronic newspapers utilizing personal computers. He was the founding host of the PBS* Computer Chronicles *series, founding editor of* Dr. Dobb's Journal, *and founding president of the Microcomputer Industry Trade Association.*

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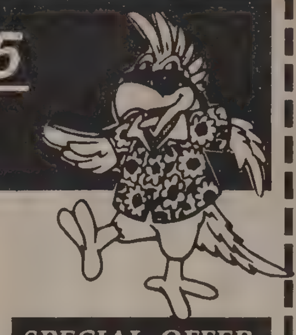

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102-PIGS. BAS-pig style...
109-INTRSEXION-game for adults
110-PARTY-Strip party game
120-SOFTPORN-Sexual adventure game
130-XGAME-X-Rated Monopoly
140-BJ-Watch her..........
150-JIGGLE-Animated graphics
160-ASTRO(***) game for men
161-X-RATED PRINT MASTER LB
162-X-RATED PRINT SHOP LB
171-MAXIHEAD-Must see
172-NASTYGAL-Must see
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180-BOYS-Gay fantasy story
184-MARINES-Gay fantasy story

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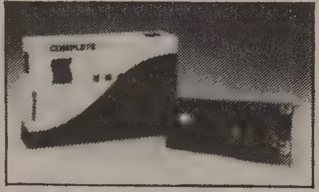

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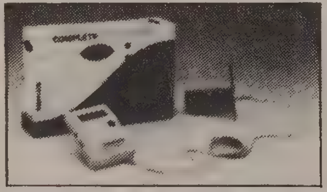

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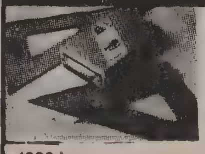

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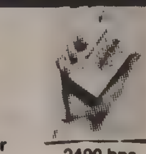

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INDUSTRY ISSUES • BY BROCK N. MEEKS

Tap Dancing On The First Amendment

In Thomas Wolfe's essay "What If He's Right?" there's a story about Marshall McLuhan telling General Electric (GE) executives that they weren't in the light bulb business, they were in the information business. The light from their bulbs, once it struck an object and then reflected into a human eye, was a conveyor of information.

Something was lost in the translation. Someone seems to have mistaken "conveyor" for "controller." In the "real world" of GE, whistle blowers (information providers) are chastised (see The Wall Street Journal, front page, June 23, 1988) and its employees are summarily denied their rights to free speech under the First Amendment.

One of the best all-around commercial information utilities is the GE Information Services (formally called GEISCO) owned system called GEnie. It's a wonderful system for expressing your own point of view. Unless you happen to be an employee of GE.

By company edict, GE employees must keep all criticisms of GE to themselves, or restrict their views to discussions over nachos and beer. If GE employees put any comments critical of GE policies or products into a GEnie online public forum, they are liable to find themselves out of job and their account on GEnie withdrawn.

Mistaken Identity

Shabtai Klein works as contract programmer. The agency he works for contracts his services for a temporary amount of time to any company that needs him. During the month of June, Klein worked for GE Information Services in their training and documentation department.

It was during his temporary assignment with GE Information Services that he uploaded a message critically stinging GE's involvement in defense related contracts to a public conference on GEnie called "Boycott GE." However, he used his own personal GEnie account and the message was uploaded on his own time.

The crux of the message was that he was voluntarily discontinuing his use of GEnie until the parent company, GE, stopped its involvement as a Department of Defense contractor. His protest stemmed from the recommendations of a peace activist group known as INFACT.

Klein's message read, in part: "After using GEnie for just a few months, I have decided to discontinue my use of GEnie. This is not a decision I made lightly. I am a microcomputer specialist in the graphics and desktop publishing field. In fact, my current assignment has me working at GE Information Services, Training and Documentation department (daytime phone [deleted]).

"GE may claim to "Bring Good Things to Life," but a close look shows GE is much more concerned with death. According to an article about the boycott in the St. Louis Post-Dispatch, GE was the Pentagon's No. 2 contractor in 1986, with $6.8 billion in contracts."

Within 24 hours of Klein's posting his message, the system administrator deleted it, and renumbered the conference to make it appear as if his comment never even existed. His GE boss informed him that his services were no longer required. And when he went home that night, he found that GEnie had pulled his account. He was locked off the system.

All this went down on a Friday. Klein wasn't able to get answers until Monday morning.

On Monday, in a conversation with Bill Louden, GEnie's vice president, he was told that "It was GE's policy that GE employees not identify themselves when they use the system." But Klein wasn't a "real" employee of GE. "Precisely," says Louden. "But he strongly implied that he was. And further, he published a company phone number. These facts, combined, represented an inappropriate message, so we deleted it from the system." Louden denies that Klein was being censored for his comments.

Louden claims that after his discussions with Klein, on Monday morning, it was agreed that his account would be reinstated, if Klein would post a message "stating that he was not an employee of GE."

Free Speech: Never The Issue?

Klein agreed to repost his message with the clear disclaimer that he was not an employee of GE. With that cleared up, Louden had no problem with Klein's message, and, in fact, he seems delighted that the "Boycott GE" conference is online.

"Any kind of a controversy draws more use," he told me. "And that only drives up my revenue. We've never told any GEnie user that they can't speak their mind.

"I don't know if Klein is trying to be some kind of martyr, but the issue, for me, was never one of free speech."

But what if another GEnie user, one identified as a "real" employee of GE, picked up Klein's impassioned appeal and voiced similar concerns? How would they be treated? "Well I, er . . . that's rather speculative and not what happened here," Louden said, as if he had to deviate from a scripted set of comments.

Yet that is exactly the issue that played out over the weekend.

Louden was concerned because, in his words, "the average user couldn't determine whether Klein was a GE employee or not." And since there is a "gag order" on GE employees, the very perception of a GE employee criticizing the company had to be dealt with in a rather abrupt manner.

"These kinds of issues are between an employer and employee and are not between a service like GEnie and user," says Louden. "I think there's a different arena you enter into at that point at that time."

When I asked Louden, point blank, whether a GE employee is allowed to openly criticize GE using a personal account on GEnie, he tap-danced around the issue, saying, "The only equivalent policy at GE that may be related, and I'm sure every company has this, is the use of company stationery for personal viewpoints. In that environment, a personal viewpoint on company stationery could be construed as a company policy or position. So there is a policy, like most corporations, restricting that type of luxury."

Do we want corporations with the clout of GE running information systems? Remember that GE owns NBC, too. Sam Simon, a Washington, DC-based telecommunications lawyer and lobbyist, asks: "Would Tom Brokaw be fired for criticizing a GE product?"

Luxury indeed. But can GEnie be construed as "company stationery"? Louden answers that question, too. "I'm not sure that the posting in a GEnie world, when [someone is] identified as a GE employee, and publishes a GE phone number—I'm not sure that's any different than using company stationery."

Case closed. You can say anything you want, but if you're a GE employee that better not be anything critical of your employer.

Catch The Drift

The implications here go beyond a corporation's "right" to censorship. When a company like GE, which employs hundreds of thousands of people directly or indirectly, throttles the free flow of information by company edict, some serious questions must be asked.

Do we want corporations with the clout of GE running information systems? Extending the question beyond online communications, remember that GE owns NBC, too. Sam Simon, an influential

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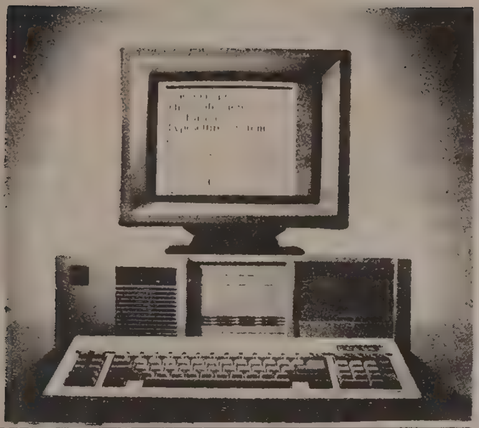

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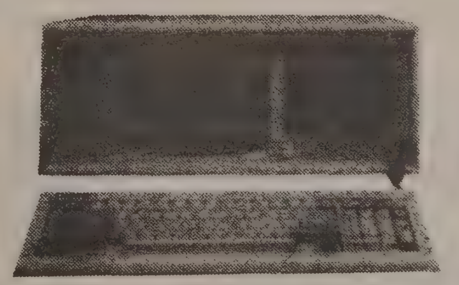

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Washington, DC-based telecommunications lawyer and lobbyist, asks: "One has to wonder whether such a policy affects how objective NBC news broadcasts are. Would Tom Brokaw be fired for criticizing a GE product?"

The issue of "the conduit controlling content" looms too real in these situations. Former FCC Chairman Nick Johnson says: "Corporate censorship is rampant, it's horrible, it effectively undercuts the purpose and role of the First Amendment. If corporations can silence employees on those subjects they know best, and, increasingly, corporations provide the employment, and especially for professionals and technocrats, millions of Americans have been very effectively denied the First Amendment's protection, and with a devastating impact on the rest of us who need the information they can provide."

CompuServe users mentioning CompuServe competitors have found nasty little "warning notes" stuffed in their electronic mailbox, telling them not to "try and recruit" for other online services, "or else" their access to CompuServe will be denied.

Future Shock

There are those that will support the right of a company to hold rogue employees in check. One businessman told me, "If you owned a company, would you want your employees to hold a demonstration outside your business establishment, telling people how terrible they thought your product was?" My answer: no. But could I forbid them to do so? The legal answer: no. The real world answer, unfortunately, appears to be yes.

It concerns me that powerful online systems such as GEnie and CompuServe tightly rein in specific types of information. On GEnie, it's an employee's critical comments about the company. On CompuServe it is information about competitive services. Users mentioning CompuServe competitors have found nasty little "warning notes" stuffed in their electronic mailbox, telling them not to "try and recruit" for other online services, "or else" their access to CompuServe will be denied.

As narrow as these two examples are, they are frightening in scope. These services could, if they wished, expand their censoring powers with impunity. As the state of the online world stands now, there are no First Amendment guarantees in the online community.

Such issues are the foundation on which we will have to build our ideas about separating content and conduit, and providing legally guaranteed rights of entry and access.

Just how far are we willing to let the information age evolve before the real questions are asked, before the real problems are addressed? Let's hope we don't carry such questions into the next century; the weight may be more than we can bear. ☐

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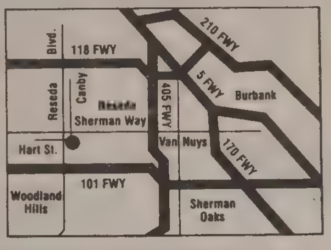

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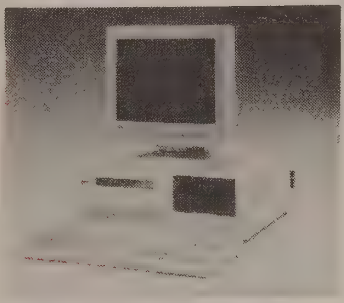

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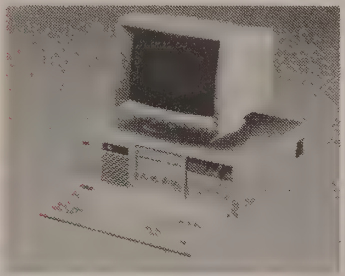

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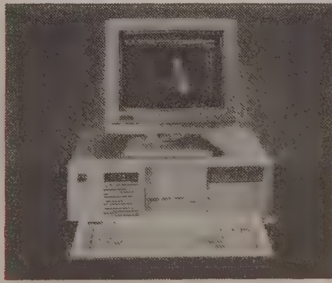

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BUSINESS COMPUTING • BY SUZANNA MUSICK

Does Your Office Need OS/2?

OS/2 is the Operating System of the future. The two giants of the microcomputer industry, Microsoft and IBM, say so. But for most business users the future is not yet here.

OS/2 offers significant improvements over MS/PC-DOS (DOS). These include the ability to operate multiple application programs at the same time (hence, multitasking), and to use large amounts of memory. Unfortunately, these gains come at a significant cost.

Perhaps the best way to determine whether or not you are ready to convert is to ask yourself, "Is there something I need to do with OS/2 that I can't already do with DOS?" Let's examine OS/2 more closely.

Running Programs

OS/2 functions under two operating modes: Real and Protected. Real mode emulates XT-type machines so you can keep using the programs you have now. Protected mode manages OS/2's multitasking capability.

Real Mode: OS/2 is designed to let users operate all DOS programs. However, no one should buy OS/2 just for this purpose. In fact, DOS applications generally run slower under OS/2.

While it is possible to run DOS applications under OS/2, the reverse is not true. Nor will OS/2 function on the XT-compatible machines using the 8088 chip. OS/2 requires the power and advanced instruction set of AT-compatible machines using the 80286 (286) or 80386 (386) chip.

Protected Mode: In protected mode, OS/2 can manage more than one program at a time. For example, while you are waiting for your spreadsheet to recalculate, you could be dashing off a cover letter to go with it.

Although Protected Mode gives you the multitasking option, you won't be working with familiar programs like *Lotus* and *WordPerfect*. At least not today. Multitasking is only available for programs written specifically for OS/2. Once the software is available, multitasking could be a strong motivator for considering its purchase.

Today simulated multitasking (actually task-switching) is available under DOS through such programs as *Windows* and *DESQview*, but we have seen few converts. This is partially due to the fact that when running on the 8088 chip, these programs are altogether too slow. While OS/2 uses the faster speed of the 286 chip, I am not convinced many users need multitasking. Most people I know are thrilled to do one thing at a time well.

Memory

As software grows more complex, larger amounts of memory are required to operate and store program files. Because OS/2 transcends the 640K memory limitation of DOS, more complex programs can be written for the microcomputer. In OS/2, up to 16 Megabytes (MB) of memory can be addressed, allowing programs to use as much as they need. Currently, though, few programs are written to take advantage of this expanded capacity. One exception is OS/2 itself, which requires 1.5 MB to boot up. A sophisticated multitasking environment may require four or more megabytes of memory just to function. (It has been rumored that one reason Lotus is slow in releasing the new version of *1-2-3* is that they are having trouble "squeezing" the program's code into DOS's 640K.)

Presentation Manager

OS/2's graphics interface — called the Presentation Manager — is said to be quite nice: it provides a consistent link between the user and the programs. In fact, it bears a startling resemblance to the Macintosh screen (hence, the current lawsuit between Apple and Microsoft). With the Presentation Manager, each program you use resides in a separate "window" on your screen. Using a mouse, you can move quickly from one application to another. This is a definite improvement over the standard DOS environment, where changing programs often means typing and retyping paths to applications, and data from the infamous "C:/>" prompt.

The down side of the Presentation Manager is that it is not yet available in an OS/2 version, though a preview version is available with *Windows 2.03* and *386*, both of which run under DOS.

Other Factors

When evaluatinng whether or not to use OS/2 there are a few other factors to consider. First: OS/2 is not complete. With software development of any kind, that translates into bugs. If the Operating System has bugs, how can you expect your application programs to run smoothly?

Second, DOS is neither obsolete nor dead. There are more than ten million DOS users operating thousands of DOS applications. Software developers are not going to abandon such a huge user base. They will continue to develop and support DOS applications for a long time to come. Most industry leaders say it will be three to five years before we see a proliferation of OS/2 applications. There were reportedly less than 500,000 IBM PS/2 units (which support OS/2) sold in 1987. And, as with *VisiCalc* on the CP/M operating system, and Lotus *1-2-3* on DOS, it will probably take a blockbuster program to convince significant numbers of DOS users to switch anytime soon.

Costs

While microcomputer users have always been drawn by such product features as "more" and "faster," OS/2's "more and faster" costs considerably more.

Today OS/2 is a tool for software programmers and power users using power applications on powerful microcomputers. If you doubt you need it, you probably don't.

Software Costs: Many updates of the Operating System will be forthcoming before it is complete. This adds to the complexity of developing software under OS/2 and indicates that the developer will incur greater expenses in programming and testing new products. Additional costs will naturally be passed on to us — the users. It also means that some small software developers may not be able to afford to write programs for OS/2 — hence less software available to choose from.

Hardware Costs: More hardware is needed to effectively run OS/2: faster chips, more memory, a mouse, etc.

The hardware side of this industry has shown again and again that as new technology matures, and competition increases, prices decline. What costs thousands today typically costs hundreds tomorrow. While I never recommend delaying the purchase of hardware or software because it may be cheaper tomorrow, I can't see purchasing something at a premium when you are not even sure you need it. The competition has proven its ability to make the same functional hardware for substantially less than the going IBM price. Figure on spending a minimum of $1,500 to $2,000 to upgrade from a 286-based machine to an OS/2 compatible environment.

Conclusion

Today OS/2 is a tool for software programmers and power users using power applications on powerful microcomputers. If you doubt you need it, you probably don't. Leslie Fiering, Manager of Advanced Technology for Banker's Trust put it best: "Technology without an application is meaningless."

That sums up the status of OS/2 today. Until the software is available, why incur the considerable expense of hardware, software, learning time and frustrations? We have a saying in the microcomputer profession: "You can always tell the pioneers by the arrows in their backs." Don't be a pioneer. Wait for the future to arrive, then decide. ☐

Copyright © 1988 by Suzanna Musick. All rights reserved. *Suzanna Musick is a Manager in the Computer Consulting Department of Hemming Morse Inc., CPAs. Her experience encompasses a wide range of industries such as distribution, retail, construction, real estate, financial and professional services.*

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Kenfil Announces Top Software Sellers

BUSINESS & PRODUCTIVITY —MS-DOS

Last Month	August	
1	1	WordPerfect
2	2	Carbon Copy Plus
3	3	RightWriter
9	4	Turbo C
4	5	Lucid 3-D
7	6	Dac-Easy Accounting
13	7	Turbo Pascal
14	8	dBFast
–	9	Sprint
5	10	SideKick Plus
11	11	Flow Charting II
–	12	Quattro
10	13	NewsMaster II
6	14	FormTool 2.0
–	15	Org Plus

UTILITIES—MS-DOS

Last Month	August	
1	1	Norton Utilities Advanced
4	2	XTree Professional
2	3	Direct Access
3	4	PC Tools
5	5	Fastback Plus
6	6	LapLink Plus
7	7	DESQview
–	8	Disk Optimizer
9	9	SeeMORE
10	10	Sideways
–	11	Norton Utilities 4.0
13	12	Print Q
12	13	Q Dos II
15	14	COREfast
14	15	pcANYWHERE

MACINTOSH

Last Month	August	
2	1	Suitcase
1	2	SuperPaint
3	3	Beyond Dark Castle
4	4	QuicKeys
11	5	Canvas
–	6	CompuServe Navigator
13	7	WordPerfect
12	8	Word Finder
–	9	Calendar Maker
6	10	Hyper DA
14	11	Managing Your Money
7	12	"Draw It Again, Sam..."
5	13	Mac Money 3.0
–	14	MORE
10	15	Stepping Out II

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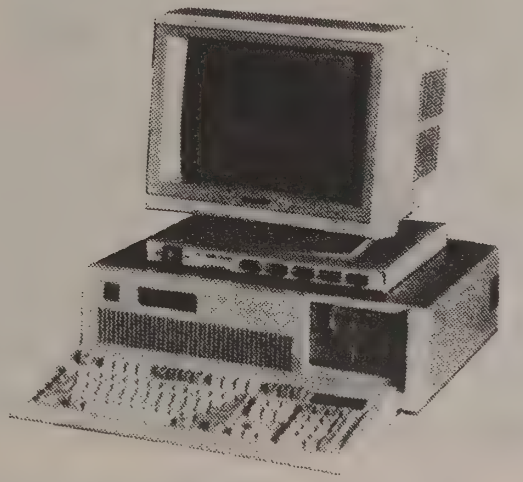

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- AT Keyboard

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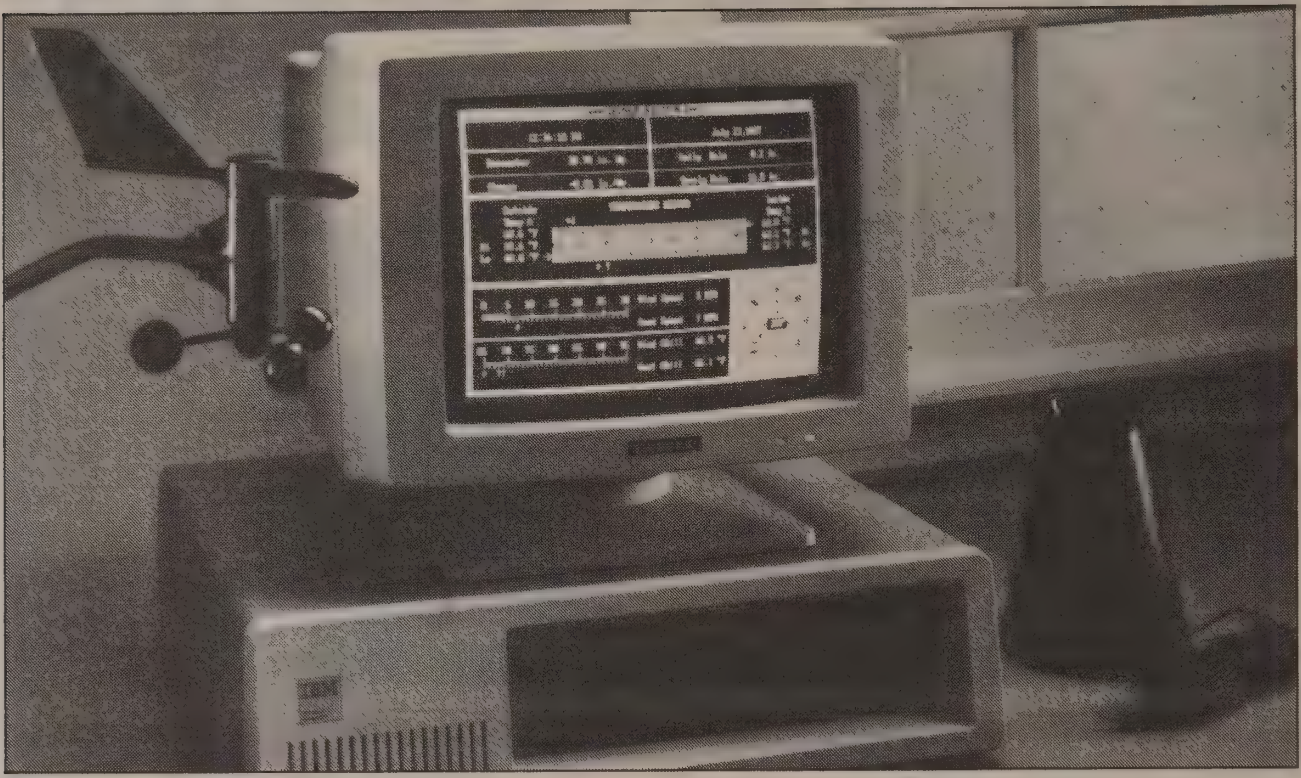
The PC Weather Pro



A Low Cost Weather Station That Satisfies Both Professionals And Amateurs

By Robert Grant Beauchamp

The PC Weather Pro from Technology Marketing is a system that uses your PC to monitor the weather. It consists of an add-in card, a range of instruments and software that allows you to keep track of all the data you've accumulated.

What makes the PC Weather Pro unique is its usefulness to both the hobbyist and the weather professional. For home users, it allows their computers to "interface" with the outside world, measuring and recording real events and patterns rather than just space invaders. For the professionals, the Weather Pro's high quality instruments and comprehensive software make it the perfect alternative for a low cost remote weather station.

The Weather Pro's instruments include an anemometer (wind speed) a wind vane (wind direction), self emptying rain sensor, indoor and outdoor temperature sensors and a barometer. All the sensors are made of high quality materials and look to be able to withstand years of exposure to the elements.

> The Weather Pro's high quality instruments and comprehensive software make it the perfect alternative for a low cost remote weather station.

Setting Up Your Weather Station

The setting up of the outside instruments introduces an element of adventure into your computer life. You may never have pictured yourself scrambling up on your roof when you purchased your PC, but in the name of science, what's a little danger? Since it is necessary to place the wind vane and wind speed cups high enough above the peak of your house to avoid local air turbulence, the utmost caution is advised. Careful placement of the rain sensor is also necessary in order to avoid trees, blowing leaves or uneven surfaces that may affect the sensor's accuracy. If you have a very large house or live in an apartment building, extender cables are available from Technology Marketing.

The next step is getting the wires that lead from the sensors into your home. Running them through a partially opened window is not advised, as the cords may get damaged from constant opening and closing of the window. The alternative then is to drill a hole in the side of the house and run the wires through there. Your spouse may not appreciate this, but again, this is science. Proper insulation of the hole should prevent any weather you're monitoring from getting in your home.

What the instruments connect to is the PC Weather Pro's internal half slot add-in board. The card easily plugs into any one of your PC's expansion slots. The board is powered by an AC power adaptor which plugs into your power strip. The jacks on the board where the sensors plug in are clearly marked.

Whenever you add boards to your PC you may have address conflicts, and it may be necessary to change the address either on the conflicting card or on the PC Weather Pro card. The Weather Pro card installed in our test computer did not have any conflicts with an already packed AT, so you probably won't have any problems. If you do, the Weather Pro provides clear documentation on how to change the address.

Weather Computer

What makes the Weather Pro fun as well as a serious scientific instrument is its Weather Computer software. When you open up the program it gives you a weather bulletin screen with all the current weather statistics at a glance. It shows barometric pressure, barometric pressure change, daily and yearly rainfall statistics and the current indoor and outdoor temperatures along with highs and lows. The bulletin screen also gives you the wind speed and gust speed and automatically calculates and displays the wind chill factor. In one corner the screen shows the wind direction in compass headings (N, NE, SE etc.) and degrees.

For a more detailed view you can go to the rain, temperature or wind bulletin screens. The wind bulletin screen, for example, shows the current, high and average wind speeds in miles per hour, kilometers per hour, knots, meters per second and feet per second. It also records the record high speed and the time it occurred.

The Weather Computer software is also able to store data and then plot it. The data may be accumulated in computer memory or stored on disk. The plotting screens take your stored data and plot it graphically. To make a print out of your graph you simply use the DOS GRAPHICS command and press Shift-PrtSc*.

Evaluation

Whether you want to evaluate the weather for a science fair project, at the local municipal airport or at a remote site of a proposed ballpark, the PC Weather Pro is able to meet stringent demands at a low cost. It represents a new philosophy in weather monitoring by using electronic rather than manual gauges. It also reawakens an old philosophy in personal computing that encourages the user to interact and learn from the very real environment that surrounds us. Technology Marketing Incorporated, 4000 Kruse Way Place, Building 2, Suite 120, Lake Oswego, Oregon 97035. (503) 635-3966.

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PUBLISHING & COMPUTERS

Jonathan Seybold on standards, interfaces and the computers of the '90s

STORY: JEFF SPURRIER • PHOTO: ANN SUMMA

"Like it or not, what we're defining right now is the foundation for computing for the next 20 years," says Jonathan Seybold, 45.

He's sitting on the lawn behind a Malibu residence which houses Seybold Publishing and Seybold Seminars. From here the view is glorious—through tall eucalyptus trees, one can see gentle swells rolling in to Paradise Cove a half mile away, while, out in the water, a fishing boat sways softly at anchor.

It's an idyllic scene, one that is strikingly out of sync with the disturbing message that Jonathan Seybold delivers with a mild-mannered urgency. While birds chirp happily in the trees and the shouts of children on the beach waft up towards the house, Seybold calmly talks about the end of computing as we know it.

"DOS will be around for a long time, but it will never take us to the new generation of computing," he says. "And for DOS people it's a very frightening thing, because that's a very significant transition."

The death of DOS has been bandied around by industry pundits ever since IBM and Microsoft announced OS/2. And for just as long there have been counterclaims that the DOS user base was so large that the format would simply endure regardless of innovations in architecture or operating environments. Like a colony of coral, the DOS world is so established, and provides so much fodder for thousands of other organisms, it is nearly immortal.

But for Jonathan Seybold, the laser printed writing on the wall is clear: DOS is doomed. The revolution has begun.

Toward More Effective Communication

The two companies that Jonathan Seybold heads up — Seybold Publishing and Seybold Seminars — occupy a niche one step removed from the mainstream world of micro computing: the use and application of computers in publishing. For Seybold, however, "publishing" is not limited to newspapers, magazines and books. Just about any form of information short of moving images falls within the Seybold vision of communication: memos, letters, presentations, proposals, databases all lie along an unbroken string of data that Seybold sees as a continuum.

"Our focus has always been that as you move up the continuum, you start to get interested in more sophisticated formats, typography and ways of presenting information," he says. "And I've never viewed that as being something that is clearly distinct from what happens in an office."

The advent of increasingly sophisticated word processing programs seems to bear out Seybold's assessment. *Word* 4.0 and *WordPerfect* 5 both seem to be targeted towards users with more elaborate and complex needs for their final output on paper.

"People are starting to realize that there is in fact a continuum," he says with satisfaction. "And companies are starting to position products at points along that continuum. They want to cover as broad a spectrum as possible, but also [have the product] be optimized for some point. As you move up the continuum you get more complex processes for producing a document. More people become involved and the document itself may have a longer life cycle. It becomes a more important document, so you try to communicate your information more effectively."

And he should know. Seybold and his associates have conducted a series of informal experiments in this field to see how different people respond to different quality output.

"The reason you've gone to the expense of typesetting over the years is because people pay more attention to it," he says. "Some years ago, when we first got the LaserWriter, I was working on a draft policy statement for the Malibu Township Council. I made two drafts with identical content off of the same printer. The only difference was that one looked typewriter-written and the other used typography. I only changed the typeface.

> 'DOS will be around for a long time, but it will never take us to the new generation of computing,' Seybold says. 'And for DOS people it's a very frightening thing, because that's a very significant transition.'

"I gave both drafts to two committees that were meeting at the same time. The one that was 'typeset' got approved in 15 minutes and had two minor changes made in it. The 'typewriter' one took three hours and they still haven't finished with the changes. They treated the 'typewriter' version as something that was very preliminary whereas the 'typeset' version looked finished and they didn't want to touch it much."

For 25 years Seybold and his family have been involved in the effective communication of information. In the early 1960s, John Seybold, Jonathan's father, formed what may have been the world's first computerized typesetting company in the aptly named town of Media, PA. His company was called ROCAPPI, an acronym for Research on Computer Applications in the Printing and Publishing Industry. With a $300,000 computer that boasted one-third the power of an Apple II, the Seybolds set about to turn the publishing industry on its head. Using a RCA 301 computer with 20K of 6-bit memory, ROCAPPI was soon producing major volumes of fully paginated output for book and magazine publishers. At a time when hot metal linecasters were considered the state of the art, ROCAPPI's approach was a radical departure from the established norm and the Seybolds' vision was met with some resistance from within the publishing industry.

ROCAPPI was sold to Lehigh Press in 1967 and three years later the elder Seybold and his son quit the company and began running a series of industry-oriented seminars. A year later, the success of the seminars led directly to the *Seybold Report* (now known as the *Seybold Report on Publishing Systems*), a newsletter dedicated to the use of new technology in printing and publishing.

Now the Seybold Publishing wing has a companion report to the *Seybold Report On Publishing Systems: the Seybold Report On Desktop Publishing*. And, since 1980, Seybold Seminars has brought together the leading vendors and end users in electronic publishing for a week of meetings in March. In 1986 the Seybold Desktop Publishing Conference was started to address the growing merger of the computer and publishing industries. (This year's conference takes place September 14 – 17 at the Santa Clara Convention Center.)

It all may sound somewhat dry until you realize that in the *Seybold Reports*, Jonathan has chalked up an impressive list of predictions over the years. In 1973 he anticipated the importance and arrival of personal computers; in 1978 it was laser printers; in 1980 it was WYSIWYG displays, mouse/icon user interfaces, and networked PCs; and in 1983 it was desktop publishing.

So when Jonathan Seybold says DOS is doomed, it's time to start shopping around.

Riding The Fourth Wave

The Seybold view may cause heart palpitations at *Time* magazine or Simon & Schuster, but what does all this have to do with me or you? Quite a bit, says Seybold, for increasingly the needs of the publishing industry are becoming the driving force for the computer world. The itch that a monolith like the L.A. *Times* feels may soon be scratched by a divergent host of tiny outside developers scattered throughout the computer industry. We in the Fifth Estate have always recognized our importance in shaping opinions. Spear-heading a drive for new technological directions is another matter.

It all boils down to three simple words: The Fourth Wave.

Seybold first proclaimed his concept of merging the mass market computer industry with publishing in a pronouncement in 1987 at the company's annual March seminar. The catch-word used was "The Fourth Wave," and it prompted some heated discussions and basic denial of reality by attendees.

To understand the Fourth Wave from a publishing standpoint, it's necessary to go back in time to the late 19th century when the First Wave occurred with the introduction of hot metal type. A half century later the Second Wave occurred with the advent of photo composition in the 1950s, a process that was augmented in the 1960s with some very basic computer programs used to drive phototypesetters.

Then in the 1970s came the Third Wave, when large publishing concerns farmed out requests to outside vendors for multi-user turnkey systems. And right now, thousands of these million-dollar proprietary extravaganzas are still in place. Systems in places like the L.A. *Times* are incredibly complex, offering everything a large publishing venture might require: multi-user, multitasking, networked computers with highly advanced copy control and flow of data.

"The L.A. *Times* Coyote system is a perfect example," says Seybold. "There are Tandem computers there, but 90% of what lies underneath is proprietary hardware and software. (In the Third Wave) the requirements for publishing went well beyond the state of the art in the computer industry. You had to have proprietary systems. Everybody in publishing

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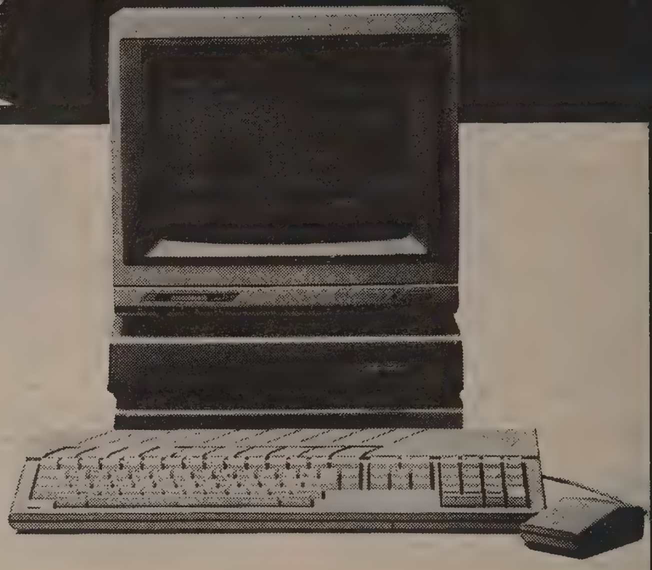

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thought that was the natural way of doing things."

But nature apparently hates proprietary systems.

"While (the Third Wave) was going on, the computer industry changed dramatically, and now the off-the-shelf tools available provide excellent platforms for publishing and there is no longer any need to use proprietary hardware and software," Seybold continues. "It's very clear now that you can do the entire publishing job on a PC in terms of editing text, creating graphics — other than high quality color pictures — and formatting pages. The thing you do not get is the information and copy management that is part and parcel of a large publishing operation. The L.A. *Times*, for example, has 500 terminals tied into its system. And there's the wire service, bureaus all over the world, all tied into one global network. That level of sophistication is not something you can get off the shelf from your local computer store."

But the more Jonathan Seybold talks, the more you realize that the time is coming when you will be able to pick up your very own Global Network shrink-wrap kit from your local dealer. If the "publishing world" (which in this sense covers everything from the smallest office to *USA Today*) needs it, he maintains, it will be built.

> 'If you look around at all the applications, it's the publishing application that requires every bit of what the next generation of computers is all about. So from a computer industry standpoint, publishing is the application that is driving the future.'

"If you look around at all the applications, it's the publishing application that requires every bit of what the next generation of computers is all about," he asserts. "So from a computer industry standpoint, publishing is the application that is driving the future. And from a publishing standpoint, what they need is now being invented. The two are coming together."

This ultimate convergence of end user need and technological innovation marks the end of a long trail of computer design, which Seybold says ultimately wound up at the dead end known as DOS. The culprit in this case was not Microsoft or IBM, but rather the original designers of the personal computer, those nerds and techies who placed a wee bit too much emphasis on the word *personal*.

"In the late 1970s when the microcomputer burst on the scene, it was developed by computer people for computer people," says Seybold. "And their whole idea was basically taking what a computer had been, a typical mainframe or mini, shoving it into a box, and giving it to one person. It was very much personal computing.

"Many of the people who were working on computers then were not aware of what had been taking place at Xerox PARC [Palo Alto Research Center] in the '70s. The PARC vision was about a totally different kind of computing — making the machines adapt to man rather than vice versa. PARC was all about having a consistent graphic user interface across all applications, about communicating graphically, taking all the things we had learned about written communication since the Middle Ages and using them as part of the mainstream tools available in a computer system. And the PARC model was about networking. People do not work individually but in groups. Their model was very different from the IBM or DEC models, which were mainframe-centric, with a priesthood around a central computer. The model here was workgroup-centric. The workgroup was the center of the universe, and the computer and its databases were peripheral to that."

The one thing that Xerox didn't get right was the flow of information, says Seybold, relying on the office set-up where a file is taken from a

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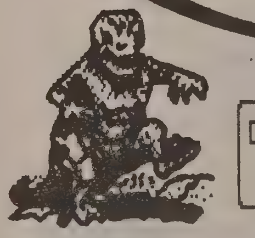

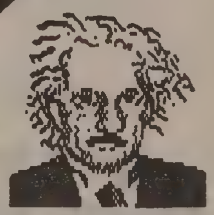

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'Everybody in the computer industry recognizes the fact that we're laying the foundation for computing in the 1990s and the stakes are enormous. Apple and Microsoft and IBM and the UNIX people are all jockeying for position to be the one who gets to define the marketplace.'

cabinet, used on a desk, and then replaced. It was left to the publishing people, "people who were heavily into sharing," to perfect the design of copy flow. Where that leaves us now, he adds, is not at a juncture but at the end of a generation.

"We're about to embark on a new generation of microcomputers that pulls all the stuff together — the graphic user interface, very powerful computers on everyone's desk, multi-tasking, multi-processing, multi-user environments, networking," he says. "And I think everybody in the computer industry recognizes the fact that we're laying the foundation for computing in the 1990s and the stakes are enormous. This is a real hardball game. Apple and Microsoft and IBM and the UNIX people are all jockeying for position to be the one who gets to define the marketplace."

Dis-Continuity

The ten million DOS machines out there are not a base that can be ignored, Seybold acknowledges, but the time has arrived when what he calls a dis-continuous change has become inevitable.

When IBM saw the IBM 360 leap to enormous success, the company became a prisoner to its own user base, where any radical evolutionary change became nearly impossible. A similar situation has existed in the microcomputing world, but now, says Seybold, a change is in the air, and once the dis-continuous break with the past has been made, a new standard will be in place for a long time.

According to Seybold, there is not any one product or breakthrough that is forcing this jump; rather, it's an intellectual realization, a new vision of computing and what the machine can do for users. And as he has said, the stakes are enormous — especially for those demi-gods who occupy the rarefied atmosphere of operating environment design.

"DOS is never going to get us to this next generation of computing," he says. "It's far too limiting. DOS users face the prospect of a jump [to the new environment] whereas what Apple has been trying to do is walk its way in. Some of the user interface is in place [in the Apple world] but what it doesn't have in place is the multi-tasking, multi-user operating system. So while the DOS world is facing a jump to either OS/2 or UNIX, the Mac challenge is to evolve a similar sort of environment while at the same time keeping what the user and the program see unchanged. And at the same time [Apple must] do a major overhaul of the operating system that lies underneath."

It's startling to hear this oracle of the future come out as a fan of UNIX, but Jonathan Seybold makes it clear that he believes the often-criticized operating system deserves a shot.

"If you look at where we have to go — an environment that is multi-tasking, multi-user, networking and heterogeneous, one realizes there already is an operating system that is what OS/2 wants to be, and that's UNIX," says Seybold. "It is the only heterogeneous system that is supported by virtually everybody in the business. The problem is that there

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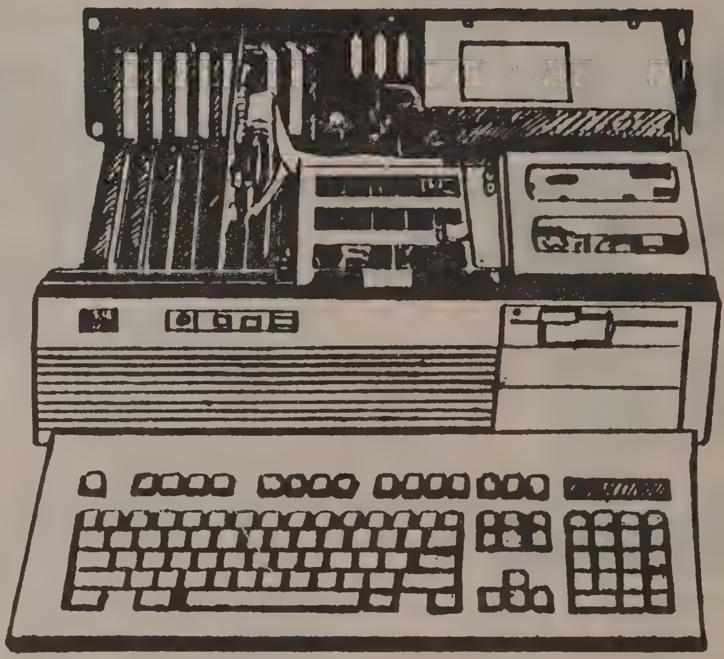

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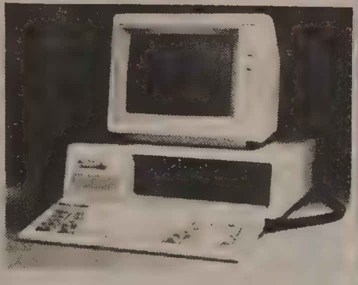

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‘While the DOS world is facing a jump to either OS/2 or UNIX, the Mac challenge is to evolve a similar sort of environment while at the same time keeping what the user and the program see unchanged.’

are too many varieties of UNIX. There has not been a single consistent UNIX environment with a single user interface."

The fact that UNIX is large and is excruciatingly difficult to deal with is unimportant, he says. Large won't matter as computers get more powerful, and difficult will be moot once the user interface is in place. The only hurdle that UNIX faces in giving OS/2 a run for its money is the ability to attract mass market shrink-wrap software. And according to Seybold, the jury is still out on UNIX — particularly as people realize the problems with OS/2.

Seybold feels that Microsoft and IBM made an unwise decision to make a 286 version of OS/2, essentially crippling the system when it was run on a 386. Part of the problem may have stemmed from an underestimation of how rapidly the 386 would catch on. Even IBM has jumped on the bandwagon, indicating that it's going to have an all-386 line in 1989. But that's not all that's wrong with OS/2. What Seybold finds more offensive is the manner in which the system handles its abandoned sibling, DOS.

"I think they made a mistake in trying to maintain too much DOS compatibility," says Seybold. "With a Sun 386i computer running on UNIX, and with their Open Look environment, you can open up a window and run a DOS program. It gives you a nice environment for doing that. If I think about what I'd want in a transition to a new machine, that's what I'd like to do. I'd like to have the 386 machine and a new operating environment, but I'd still like to be able to run my old DOS programs in windows — at least until I've got a library of new stuff that makes the old software irrelevant. That doesn't require being as compatible with DOS as OS/2 is going to be."

Hardware, Software And The Laser Catalyst

Of course in desktop publishing, DOS is simply one side of the coin. If you were to sit down now and decide on what machine to buy for DTP, there's only one choice really, says Seybold: the Macintosh. The user interface is in place, the network solution is finished and the memory limitations of DOS are nonexistent.

About the only thing that the Mac lacks is a program like *Ventura Publisher.* And considering the ten million DOS machines in existence, it's easy to see why *Ventura* is so hot. It also runs on a wide variety of machines, unlike *PageMaker* 3.0 (which won't run on a standard DOS machine on a network — a serious limitation in the shared data world of publishing).

But the software is only part of the puzzle. If Seybold had to choose one development that paved the way for the DTP revolution, it would clearly be the laser printer.

"The catalyst, without a doubt, was the LaserWriter," he says forcefully. "That brought typographic-appearing output to the mass market. You had the Mac and it was important, but it was the LaserWriter that really opened the flood gates. When I first saw the LaserWriter, well before its official release, my reaction was 'This turns the world upside down!' It was so obvious how important it was.

"After that came the Aldus *PageMaker* software, which does paste-up like design. It was never appropriate for doing every kind of document, but the reason it was so important was that it was good enough from the start that you could do some class of professional product. From the standpoint of precision, high quality and accuracy, you could produce documents that any professional would be proud of — even from the beginning."

There was more to *PageMaker* than simply doing a good job. It effected a change in the attitude of dealers, says Seybold.

"When it came out, people were saying dealers were dead, everything was going to go via discount channels for selling hardware," recalls Seybold. "People said the only way we're going to sell software is through VARS — vertical market VARS, sell to doctors or lawyers.

"When the Aldus came out on the Mac, it was sold through retail dealers, and because they didn't have much choice in the matter they turned a portion of their dealers into VAR dealers by teaching them how to sell and support an application solution. And the dealers learned in the process that they weren't just selling a $500 software package — they were also selling $10,000 worth of hardware to go along with it. Like *VisiCalc* and *1-2-3* before it, *PageMaker* was the kind of application program that sold hardware. People would walk in and buy a computer to run that program.

"Prior to that, people thought publishing applications were too complex to be sold through mass market channels and had to be sold by specialized sales/service organizations. And if you had sold *PageMaker* through a dedicated sales force, it would have sold for $10,000 or $15,000, not $500."

‘If you look at where we have to go—an environment that is multi-tasking, multi-user, networking and heterogeneous, there is already an operating system that is what OS/2 wants to be, and that's UNIX’

Beyond Desktop Publishing

At the final analysis, even Seybold admits that not everyone needs desktop publishing ability. While he believes the trend towards across-the-board upgrading of data is inevitable, right now he couldn't justify a user whose output is mainly letters or memos going out to totally outfit himself with the latest whiz-bang technology. But once someone does start using DTP for other things, the tendency is to also use it for less important communication.

"And once you move beyond letters and memos to reports, proposals, any document where you're trying to convince somebody or something or sell them something, then you very quickly realize how effective it is to have a 'typographic' appearance."

Indeed, the move of DTP into the computing mainstream has prompted two changes for the Seybold Desktop Publishing Seminar. Due to the demand for space, they're moving next year's show to the much larger Moscone Center in San Francisco. And they're also dropping the word Desktop out of the name.

"What's happening is that the distinction between desktop publishing and the mainstream computer industry is becoming less and less defined, just as are the distinctions between desktop publishing and the 'professional' publishing world," he says. "That's the major theme this year. It's all coming together and [at the Santa Clara show] what you're going to see is the extent to which the computer industry and the publishing industry are becoming intertwined.

"There was an assumption on some people's part that desktop publishing would be this year's fad. My feeling is that was a very short-sighted assumption. We really are at the Model-T phase. There's so much further to go, so much more to do, so much more market potential that hasn't been touched yet. This is something that is far from having peaked." ☐

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Zenith Flat Tension Mask Monitor

Manufactured by: *Zenith*
For: *PC compatibles*
Reviewed by: *Bennett Falk*

The Zenith Flat Tension Mask monitor is a 14-inch analog monitor with a perfectly flat screen. It's designed to be used with the Zenith Z-449 display adapter and a PC bus card that is largely VGA compatible. Packaged with the Zenith card is a diskette containing video drivers for Microsoft *Windows*, *GEM*, Lotus *1-2-3*, Lotus *Symphony* and *AutoCAD*.

Together the monitor and card produce an exceptionally high quality display. The flat screen almost entirely eliminates glare, and this results in more vivid color representation and displays that are easier to read.

The monitor is capable of 640 x 480 resolution, and Zenith exploits this resolution to produce easy to read, very crisp text displays using a character matrix of 8 x 19. (The VGA standard, for example, is a character cell of 8 x 16.)

All but one of the VGA modes are supported, but the omission is an important one: the Zenith card does not support the 256-color mode that is part of the VGA standard. The card supports displays with 16 colors selected from a palette of 64.

Except for this missing mode, the Zenith equipment is fully VGA compatible. The VGA-oriented *Deluxe Paint II* package was used to test the card's handling of VGA modes.

The Zenith card performed very well, although at the outset *Deluxe Paint II* had some problems recognizing it as a VGA device. When *DP II* is run, the user is given a menu of display modes. With the Zenith card in place, selecting any of the VGA modes produces a message that no VGA card is present, and the software prompts for confirmation to continue. Those who persevere will find that, with the exception of the 256 color mode, the Zenith card behaves perfectly well in all the VGA modes *DP II* supports. Undoubtedly, *Deluxe Paint II* is not alone in failing to sense the Zenith card's VGA capabilities.

The Zenith card also works well with the XENIX operating system. Current versions of XENIX do not support VGA displays. When XENIX is booted, it runs a series of tests to determine what hardware is available, and some VGA cards so confuse XENIX that it can't complete the boot procedure. To its credit, the Zenith card causes no such problems for booting XENIX. Unfortunately, there is no software to exploit the card's fine features under XENIX. The products such as *VP/ix* that run DOS as a process under XENIX may offer some hope of resolving this. However, *VP/ix* does not as yet offer VGA support, and in tests a beta-test version of *VP/ix* initialized the Zenith adapter to an unworkable mode at startup.

After using the Zenith monitor and card for a few days, I was so impressed by the quality of the display that I cancelled an order for a Sony Multiscan and requested the Zenith instead.

Another potential drawback to the Zenith equipment is that the monitor is not a "multi-mode" monitor: it is analog only. The Zenith card has connections for both analog and digital monitors, but the Zenith monitor can only be connected to the analog socket.

Like any prudent buyer, I worry a lot about the compatibility and versatility of the equipment I buy. But after using the Zenith monitor and card for a few days, I was so impressed by the quality of the display that I cancelled an order I had placed for a Sony Multiscan monitor and requested the Zenith equipment instead. (Zenith Data Systems, 1000 Milwaukee Ave., Glenview, IL 60025. 1-800-842-9000.)

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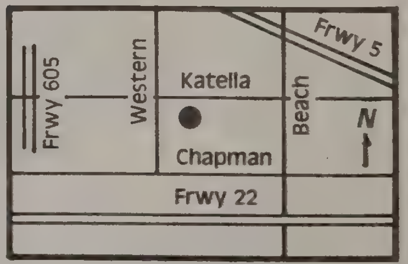

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Mac-PC Connectivity 60
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MacLink Plus, for quick and easy exchange of formatted files between Macintosh and PC.

First Impressions

FullWrite Professional

By Mary Eisenhart

- **Hackers Conference, 1986.** Scott Wiener and Jeff Young of Ann Arbor Softworks, creators of *FullPaint*, let it be known that they're working on something the like of which has never been seen by the Mac-using world.

  At the same conference, Ted Nelson announces that hypertext will become reality in our time.

- **Macworld Expo, January 1987:** Ann Arbor is demonstrating to SRO audiences a revolutionary word processing package, *FullWrite*. It wraps automatically around graphics. It lets you embed hidden notes in the text. It has outlining capabilities. It has features you haven't even imagined yet. What it doesn't have is a ship date, despite national ads singing its praises.

- **Macworld Expo, January 1988:** Demo copies of *FullWrite* are being handed out to all and sundry. Shipment promised Real Soon Now.

- **Spring 1988:** *FullWrite Professional* ships.

FullWrite Professional is possibly the most ballyhooed product ever created for the Macintosh. It's been one of the most notorious vaporware packages in the history of the personal computer. It was also acquired, along with Ann Arbor Softworks, by Ashton-Tate as part of its strategy to obtain market share in the burgeoning Mac business market.

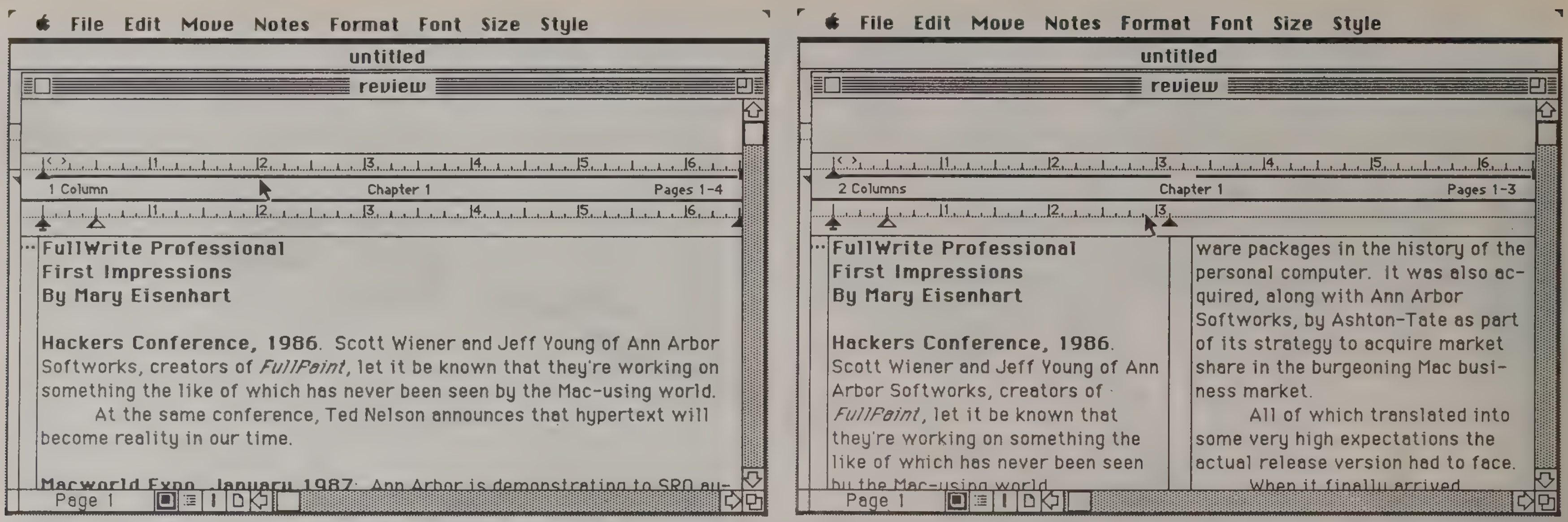
All of which translated into some very high expectations the actual release version had to face.

When it finally arrived, *FullWrite* was a large (three disks, two manuals and the odd reference card here and there), expensive ($395 list) package which billed itself as a complete word processing environment. And, as befits a complete environment, it was also an indisputable memory hog, requiring a minimum of one megabyte just to open.

In its short life, *FullWrite* has acquired some highly vocal detractors and some colorful horror stories. Not unlike Microsoft *Word* 3.0 and *WordPerfect* for the Macintosh, it has a variety of not-necessarily-repeatable bugs ranging from minor annoyances to serious problems.

On the other hand, despite the fact that I'm surrounded by enthusiastic detractors of the package, all of whom have legitimate points, I find myself increasingly won over by *FullWrite*, which is in many ways less an application than a universe to be explored and configured the way I want it — and one which has the grace to hide its myriad of features and options until I ask for them. It's not too farfetched to say that if Ted Nelson, creator of the hypertext universe in which everything is linked to everything else, had devised a word processor, this would be it.

This is the first of a two-part series on *FullWrite*. In next month's installment I'll discuss some of the myriad features in depth; this month's will



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When it finally arrived

Column selection is easy: click the arrows on the ruler to increase or decrease the number of columns, and FullWrite reformats the text accordingly.

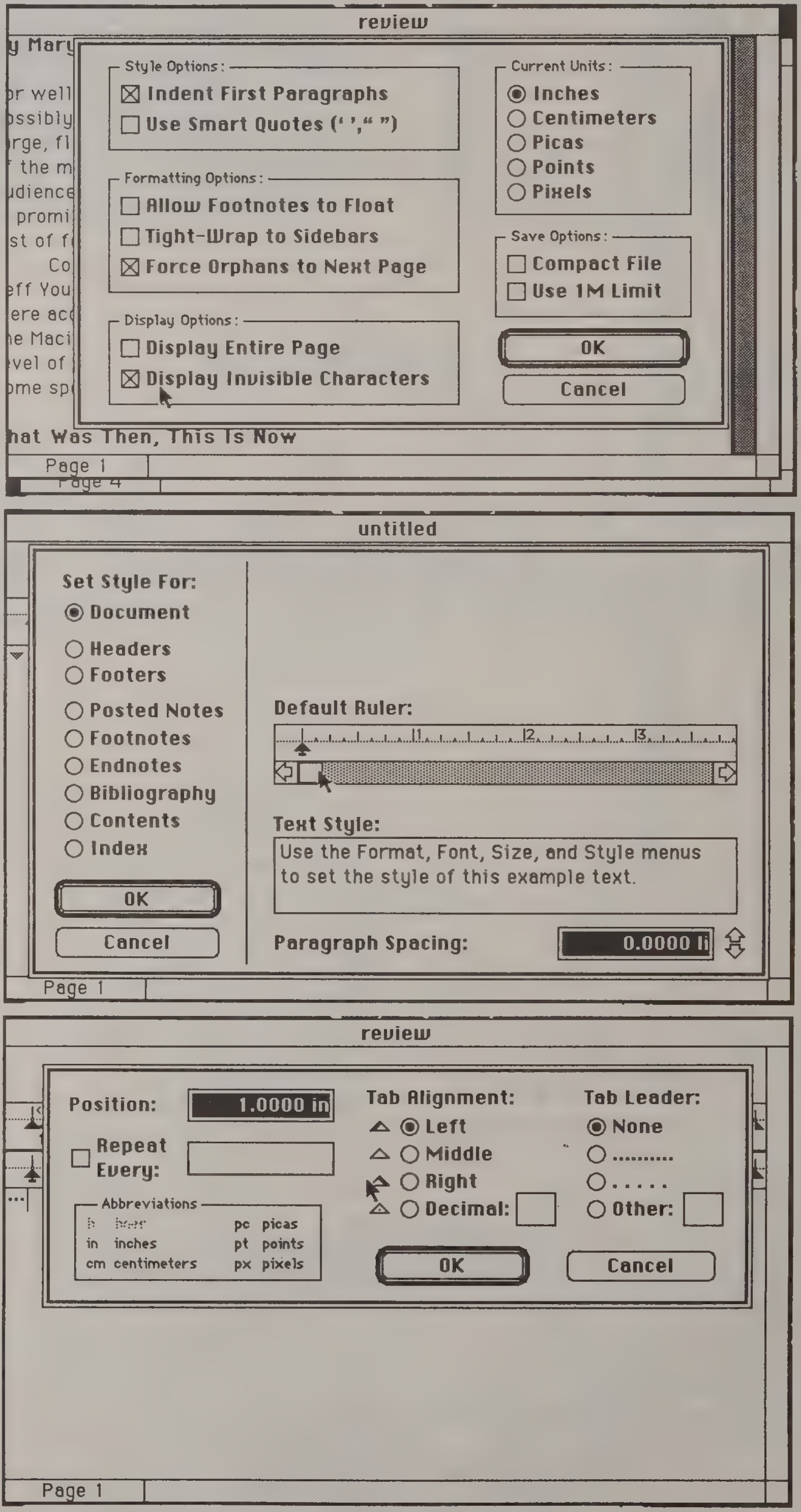
concentrate on general orientation and a few necessary caveats.

First, The Bad News

FullWrite's memory requirements are going to be a serious, perhaps prohibitive, drawback for many Mac users. After running it on a one-meg Plus, a two-meg upgraded 512, and a five-meg Mac II, my own verdict is that its performance is unacceptably sluggish with one megabyte (at least, I consider it unacceptable if a two-page document shows a noticeable lag between keystroke and cursor movement), barely acceptable with two megabytes (text-handling is fast enough, but text-and-graphics documents slow down appreciably), and pretty delightful on the five-meg II — even with MultiFinder and System 6.0.

Also, forget running this application without a hard disk. The program itself takes up a whole diskette, and that's not counting the System, the dictionary, the thesaurus, and all those other files that take up two diskettes.

Leaving aside the issue of the current DRAM crisis, which has sent the price of memory upgrades through the roof through no particular fault of *FullWrite*'s, it is particularly unfortunate that the program is virtually useless on one-megabyte Macs, because conceptually it's very well suited to users who want, essentially, one package for a wide range of word-processing needs. It allows you to configure documents from short notes to large books, legal briefs to academic dissertations, and gives a huge range of formatting and enhancement options. It has the genuine potential to be a self-contained and self-sufficient environment, and a godsend to those who want a variety of great-looking documents without having to learn a word processor, a graphics package and a desktop publishing program. However, it would probably run a whole lot better on those millions of one-meg Macs if you were able to choose your preferences, define your templates, choose your formats — and then discard (or at least store offline) the options you don't want, which currently stick around out of sight but not out of your Mac's mind.



Style Options:
☒ Indent First Paragraphs
☐ Use Smart Quotes (' ', " ")

Formatting Options:
☐ Allow Footnotes to Float
☐ Tight-Wrap to Sidebars
☒ Force Orphans to Next Page

Display Options:
☐ Display Entire Page
☒ Display Invisible Characters

Current Units:
● Inches
○ Centimeters
○ Picas
○ Points
○ Pixels

Save Options:
☐ Compact File
☐ Use 1M Limit

hat Was Then, This Is Now

Set Style For:
● Document
○ Headers
○ Footers
○ Posted Notes
○ Footnotes
○ Endnotes
○ Bibliography
○ Contents
○ Index

Default Ruler:

Text Style: Use the Format, Font, Size, and Style menus to set the style of this example text.

Paragraph Spacing: 0.0000 i

Position: 1.0000 in
☐ Repeat Every:

Abbreviations
in inches
cm centimeters
pc picas
pt points
px pixels

Tab Alignment:
● Left
○ Middle
○ Right
○ Decimal:

Tab Leader:
● None
○ ....
○ . . . . .
○ Other:

FullWrite's menus offer a wide range of formatting options.

And Now The Good News

But if you're one of the fortunate users for whom memory isn't a problem, there's a lot to like about *FullWrite*. It's a package a professional writer could love for its features and a neophyte could get started with painlessly. Basic tasks are easy and intuitive, and once you've decided you need to do something it's usually easy enough to find out how; usually you can get the necessary information by exploring the menus, using the extensive online help in the Apple menu, or looking it up in the manual.

Enumerating and discussing all the features and options of *FullWrite* would result in a document longer than the manual. Suffice it to say that *FullWrite*, unlike many applications, doesn't offer a tutorial, aside from what it calls a "tutorial document" which incorporates examples of the options. While this is a little unnerving when you're confronted with the sheer size of *FullWrite*, in practice it's actually a fairly sensible approach. *PageMaker*, for instance, isn't much good to you till you've learned most of the tools. *FullWrite* as it first appears is as simple as *MacWrite* or *WriteNow*, and you can be off and running in no time. (If, however, your needs are likely to be fairly simple into the indefinite future, you should probably save about $300 and buy *MacWrite* or *WriteNow*.)

Your Basic Document

FullWrite allows you to have multiple documents open at once, limited

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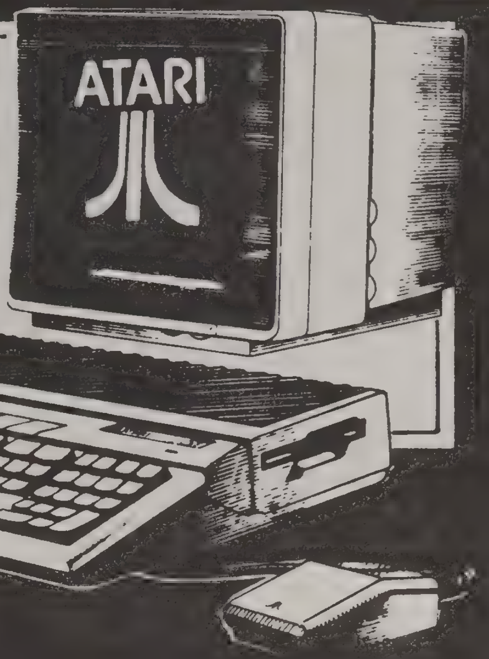

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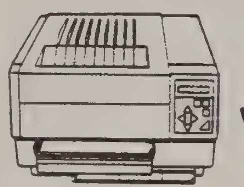

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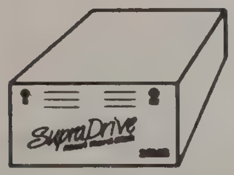

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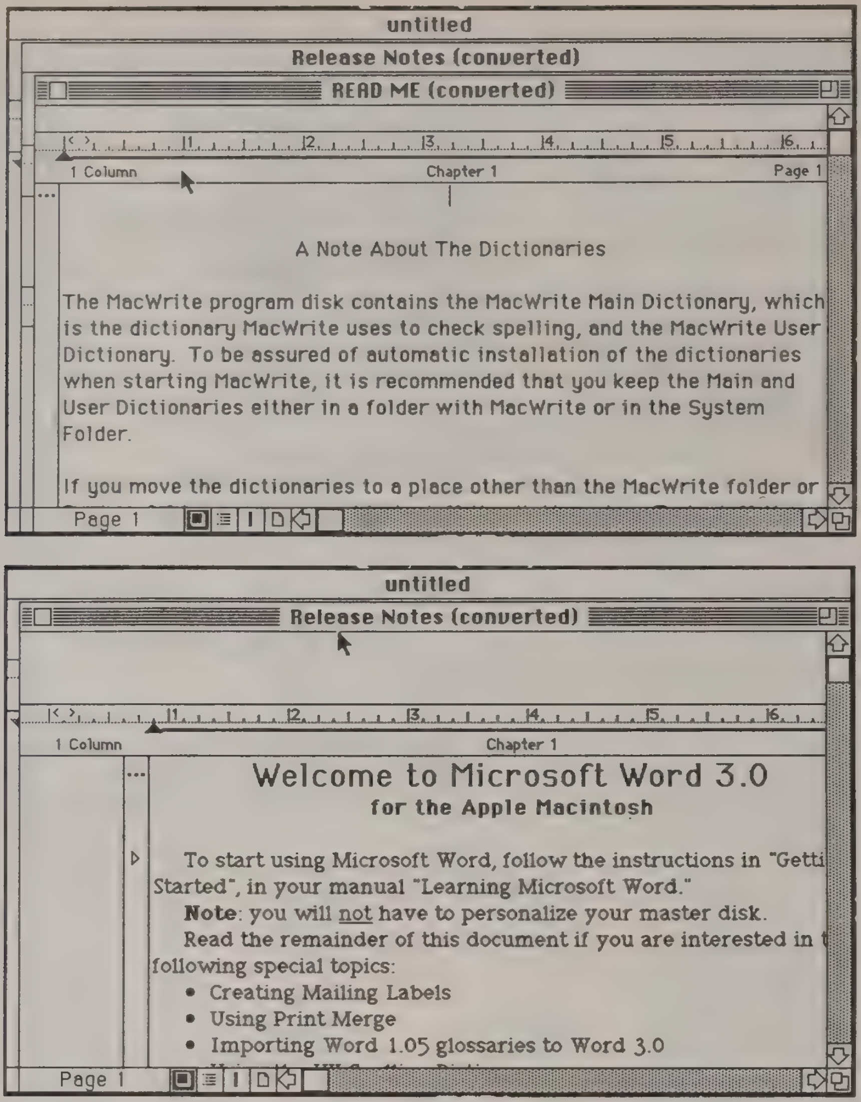

A Note About The Dictionaries

The MacWrite program disk contains the MacWrite Main Dictionary, which is the dictionary MacWrite uses to check spelling, and the MacWrite User Dictionary. To be assured of automatic installation of the dictionaries when starting MacWrite, it is recommended that you keep the Main and User Dictionaries either in a folder with MacWrite or in the System Folder.

If you move the dictionaries to a place other than the MacWrite folder or

Welcome to Microsoft Word 3.0

for the Apple Macintosh

To start using Microsoft Word, follow the instructions in "Getti Started", in your manual "Learning Microsoft Word."

Note: you will not have to personalize your master disk.

Read the remainder of this document if you are interested in t following special topics:

- Creating Mailing Labels
- Using Print Merge
- Importing Word 1.05 glossaries to Word 3.0

FullWrite imports files from several other word processors easily and transparently.

only by the amount of available memory. It also imports documents quite painlessly from a variety of other word processors—*Word* 1.05, 3.01 and 3.02, *MacWrite* 2.2, 4.5, and 5.0, and, in the PC world, most varieties of Ashton-Tate's *MultiMate*, as well as ASCII files.

FullWrite supports the use of multiple columns in the document. Compared to the likes of *PageMaker*, its method of dealing with this issue is the friendliest I've seen. Upon opening an untitled document, you're presented with the column ruler, which has defaulted to one single column across the page. At the upper left corner of the ruler are ‹ and › characters. Each time you click the › arrow, *FullWrite* adds another column and adjusts the spacing proportionally. (Unlike most desktop publishing programs, however, *FullWrite* does not let you mix the number of columns on a page, though it does offer a Sidebar option which lets you accomplish a limited version of the same thing.)

Tabs are set using a tab ruler and dialog box, which allows you not only to place your tabs and repeat them if desired; but also lets you specify a variety of leaders.

In the File menu, the Preferences option lets you choose hyphenation and spell-checking options, and also whether you'd like the document to be automatically saved at intervals. (Like most self-respecting word processors these days, *FullWrite* also lets you save the document by pressing Command-S.) Doc Layout offers the book author or creator of an academic treatise some options about appendices, bibliographies and notes (which can be placed in a variety of styles and locations). Doc Setup provides more choices of formatting, style and display.

One particularly nice feature is the Get Info option, which is not to be confused with the command of the same name in the Apple system software. *FullWrite*'s Get Info provides you with detailed information on the document you're currently working on, from basics like word count to esoterica like the number of work sessions involved in its creation and its readability in terms of school grade level.

At this level, document creation is as easy as in any of the popular Mac word processors or even some of the better text editor desk accessories. However, this is only the beginning. Next month we'll examine some of *FullWrite*'s more sophisticated options, including notes, outlining and graphics handling. (Ashton-Tate, 20101 Hamilton Avenue, Torrance, CA 90502-1319, 213/329-8000.) ☐

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BY BIRRELL WALSH

Editing Sound And Icons

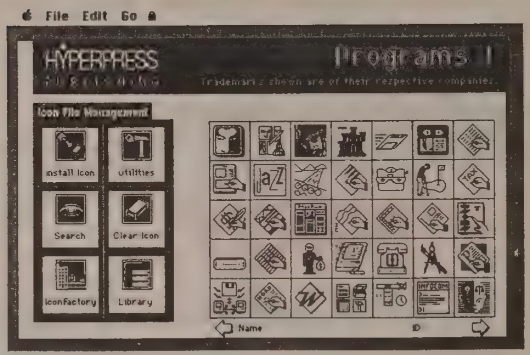
I got a chance to talk to Jan Lewis at the HyperExpo and StackMart in June. She and her cohorts expected a lot of attention for her *HyperAge* magazine among devoted computer people, but they've been surprised and pleased that the corporate community also is very interested.

It makes sense, doesn't it? A complete graphic/sound/animation tool, a database, a front end for any application, a prototyping tool, and all for $49. A few of the savvier corporations have finished rubbing their disbelieving eyes and grabbed *HyperCard*. Expect a stampede soon for three major applications:

- In-House Training
- Presentations
- Prototyping of software systems for the VAX/Mac partnership

This suggests excellent employment opportunities for people who can add "*HyperCard* Programming" to their resumes. Interested? Read on.

There's a lot to making a polished *HyperCard* application. We can use all the help anyone will offer us. *Icon Factory* allows you to edit icons. MacRecorder lets you record and edit sound. *MacGallery*, an extensive clip art collection, provides you with an assortment of artwork to include in your stacks.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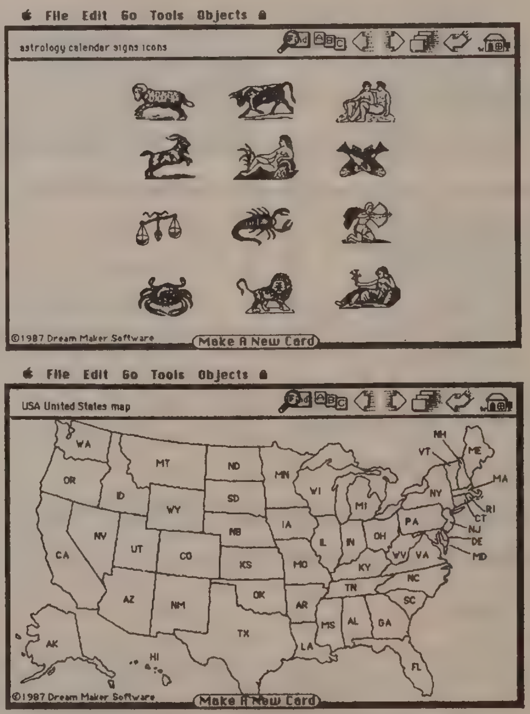
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Make A New Card

Another source of artwork is MacGallery, which includes a variety of seasonal, geographical, and other themes.

A few of the savvier corporations have finished rubbing their disbelieving eyes and grabbed HyperCard. Expect a stampede soon for In-House Training, Presentations, and Prototyping of software systems for the VAX/Mac partnership.

MacRecorder

Sometimes you wonder how people can sell products as cheaply as they do. Farallon Computing has released MacRecorder, an amazing sound system for $200.

It includes a microphone, a digitizer, and two software packages. The microphone and digitizer are in a single box. If you prefer, there are plug-in connections for a better microphone or for a line-level signal from a tape deck, turntable or CD player.

You can record with a one-card stack which simulates a recorder, or with the Sound Edit software. You can record sounds with fidelity up to 11,000 cycles and have them converted into digital pulses by the digitizer. There is a trade-off between compactness and fidelity. The better the quality of recording you choose, the more memory is required. Recording at the lowest fidelity, with a top frequency of about 2.5 thousand cycles, you can record three minutes of sound in a megabyte of memory. If you want the best sound MacRecorder has, you will only be able to record 45 seconds in the same megabyte. The lowest quality is only good for voice, the top quality will hold fair-quality music. The sounds can be used without modification in your stacks, or you can edit and shape them with Sound Edit, one of two pieces of software included in the package.

I make part of my living doing sound for television; I must admit I was cynical when I began to look at Sound Edit. Color me converted. Sounds can be filtered, volume-controlled, sped up and slowed down, and "flanged." You can generate pure tones, square waves, triangle waves and noise. You can do FM modulation on all you generate or record. If you have a Mac II, you can work in stereo. You can record any sound as an instru-

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ment for HyperTalk's "play" command. Finally, you can do editing down to the sample level — that's as little as 1/11,000th of a second. I am going to throw away my razor blade and editing block and get a copy of Sound Edit for the station.

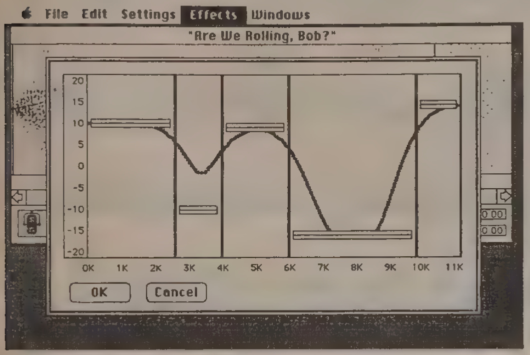
The recording process is hypersensitive to mouse movement when you use an SE or Mac II. You have to keep the mouse off the pad, or the recording stops.

This is minor, though, in comparison to the remarkable value you get. The digitizer or the Sound Edit software alone should go for $200. This one you may want to buy before they wake up. (MacRecorder, $200, Farallon Computing, 2150 Kittredge Street, Berkeley, CA 94704, 415/849-2331.)

Icon Factory

If you want to do spiffy presentations, you want good-looking icons. If you want to do animations, you want to change icons. In either case, I suspect you want HyperPress's *Icon Factory*.

The program lets you create icons, change icons, and move icons from one stack to another. It is therefore a complete utility for customizing corporate logos or cartoon characters for your own stacks. It means that you no longer have to settle for the buttons that come with *HyperCard*.



MacRecorder's SoundEdit, showing the sound wave for the word "rolling."

You get a fat-bits editing area on which you can design or change an icon, while a small copy of the icon shows you how it will look when you are finished.

"But I am not an artist!" you protest. *Icon Factory* lets you take "snapshots" of any art in any *HyperCard* stack. If you have clip art available (see *Mac Gallery* below), you can make sections of it into buttons for your stacks. You enable the "snapshot" option in *Icon Factory*, and then take a small frame with you to another stack. With a click, you can capture any image as an icon.

Icon Factory also gives you 2,000 premade icons. They include most of the program icons you find on a Mac Desktop, dozens of corporate logos, and hundreds of graphics to represent everthing from hardware to fantasy characters. Those that are almost-but-not-quite-right you can haul into the editor and touch up to your specifications.

Nice work, this program. (*Icon Factory*, $49.95, HyperPress Publishing, PO Box 8243, Foster City, CA 94404, (415) 345-4620.)

Mac Gallery: HyperCard Edition

A lot of people find themselves in a contradiction. The Mac is a graphic medium; that's why they love it. And most people are not artists.

Mac Gallery by Dream Maker Software may be the ticket for such folk. It is a collection of high-usage clip-art. You can clip images from among the 400 included and paste them into your work with Dream Maker's blessing.

You get the 400 images on a *HyperCard* stack. You also get the "*Mac Gallery* TourGuide," which is full of useful ideas about how to manipulate images. You can use the gimmicks to make a fair new collection of images out of the ones you already have. You also get a very nice collection of borders, with instructions about how to stretch or shrink the borders to fit your graphic.

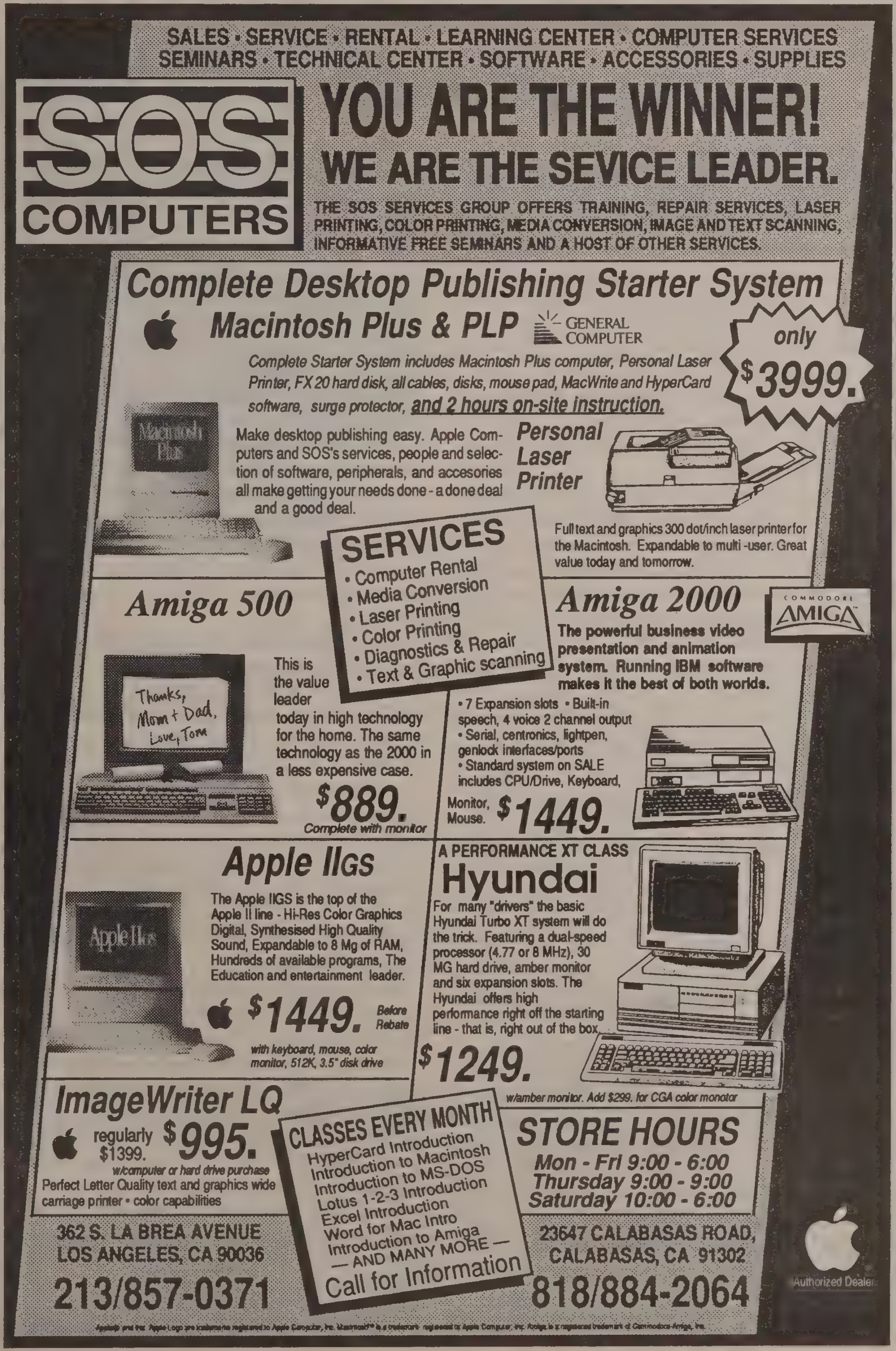
The images in the clip-art factory tend toward the cartoonish. Very well done, though. They are suitable for home, small business and house-organ use. (*Mac Gallery*, $49.95, Dream Maker Software, 4020 Paige Street, Los Angeles, CA 90031, 213/221-6436.) (Make sure you specify the *HyperCard* version or the *MacPaint* version.)

Bug Alert!

A lot of fine *HyperCard* software has problems with version 1.2 of HyperCard. Among these are *Reports* from Activision and MacRecorder from Farallon Computing. It's not the fault of the software maker, of course; it's the *HyperCard* upgrade that is causing the problem. Give the manufacturer a call if you start having a problem. Registered users of *Reports* should be getting a 1.2 version of the program in the mail.

Feedback, Flowers And Brickbats

You can leave messages, comments, praise and blame for stackware and *HyperCard* on the WELL (415/332-6106; user ID "birrell") or CompuServe (User ID 72466,3567) or by US Mail to: Birrell Walsh, PO 1104, San Francisco, CA 94141.



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MAC-PC
CONNECTIVITY

BY ROBERT BEAUCHAMP

On To Connectivity!

No Excuses With MacLink Plus

If you watched any part of the Democratic National Convention this summer you saw a coming together the like of which has never been seen in that party's often divisive ranks. On the same platform we saw a conservative Star Wars supporter, a liberal whose relative position makes him a moderate and a liberal who makes most liberals look like conservative Star Wars supporters.

Now, if the Democratic party can bring these far-flung positions together and bridge the gap between left and right, there is *no reason* why you can't get out there and bridge the gap between your DOS PC and your Macintosh.

No, I haven't been listening to too many Jackson speeches, I'm not just reaching for the stars because it's better to reach for something you can't reach than to have no stars to reach for. My goals are achievable. Within my lifetime. Actually within the next afternoon if you can get down to the software store over your lunch hour.

I'm now officially making a challenge. I'm challenging the American people, I'm challenging all computer owners, and yes, I'm challenging *you* (imagine me with a white beard pointing directly at you), I'm challenging you to go forth and connect a Mac to a PC.

And believe me, you'll feel good about it.

How do I do it, you ask? How can I contribute?

One of the best and easiest ways is to go out and get *MacLink Plus* from DataViz.

MacLink Plus

MacLink Plus is an inexpensive package which contains all the software you need for file transfer and translation, as well as a cable.

We use *MacLink Plus* to transfer and translate files from a PC to a Mac. As a bonus, however, you also get a handy telecommunications package. *MacLink Plus* can be used with modem transfers complete with the XMODEM error checking protocol.

The bulk of your work with *MacLink* is done on the Macintosh. Once it is set up, nothing needs to be done from the DOS end. Setting up is simply a matter of copying the *MacLink* program and accompanying files onto your Mac's working disk or hard disk.

On the PC end, a batch command file is included which installs the proper files on your PC's hard disk. My only complaint is that the information about the batch file is buried in an appendix at the back of the documentation rather than being right up front in the Setting Up chapter.

In the interest of those documentation dozers out there, to install *MacLink* on your PC's hard drive, complete with subdirectory, put the *MacLink* disk in the A: drive and type **COPYTOHD C:**.

Once in your C: drive and in the MACLINK subdirectory, you call up *MacLink* and set the parameters you expect to use. You decide which serial port you will use: COM1, COM2, etc., whether the communications are via cable or modem and the baud rate.

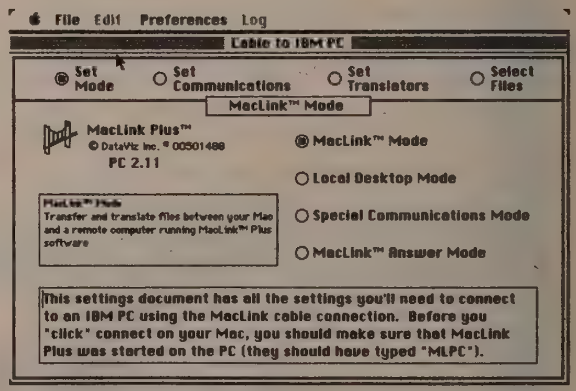
For security you can use a password and restrict certain disk units from outside access. You can save these settings under a separate batch file name if you link up with Macs with different settings. As the PC is a passive partner, all you have to do is get "online" by pressing O and wait for the call.

The cable that is included with Mac*Link* has a standard 25-pin connector for your PC's serial port. A 9-pin AT style serial port adapter is also included. On the Mac end is the Macintosh Plus 8-pin circular connector. If you have an older Mac with the 9-pin connector, you will have to send your cable back to DataViz; they will replace it with the cable you require at no extra cost.

The first basic function of *MacLink* is Mac-to-PC file transfer. While you can set *MacLink* 's parameters from its main menu window, DataViz has conveniently included preset scenarios. Clicking the Mac To PC Cable icon automatically brings up the settings you need to transfer files over the *MacLink* cable to the PC. There are also presets for Mac-to-PC transfers using modems and Mac-to-Mac modem transfers.

Once in the main window, you click the Select Files button. This moves you to a window very similar to the Font/DA mover you've probably already used. On the left side is the window for Macintosh files, and on the right, the PC files window. When you click the connect button, *MacLink*

One of the best aspects of MacLink is that it not only transfers files from PC to Mac, it also translates them at the same time.



MacLink™ Mode
Transfer and translate files between your Mac and a remote computer running MacLink™ Plus software

This settings document has all the settings you'll need to connect to an IBM PC using the MacLink cable connection. Before you "click" connect on your Mac, you should make sure that MacLink Plus was started on the PC (they should have typed "MLPC").

MacLink supports a variety of file transfer modes.

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hooks your Mac up to the waiting PC.

One of the best aspects of *MacLink* is that it not only transfers files from PC to Mac, it also translates them *at the same time.* With a network you would have to move the files and in a separate operation translate them into the form you wanted.

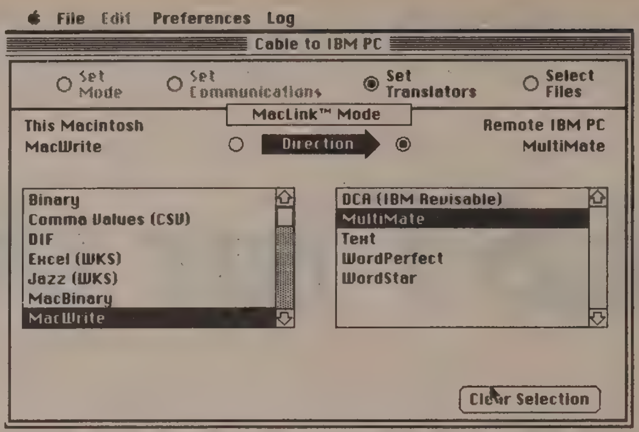
Before transferring files with *MacLink* you use the Set Translators screen. Here you click the file format of the file you want to translate, then click the file format you want it translated to, again a window similar to the Font/DA mover. This is also where you determine the direction of the transfer, Mac to PC or PC to Mac.

You then go back to the Select Files window, select your files, and *MacLink* transfers and translates at the same time.

MacLink Plus accommodates a wide range of formats. You can translate all the biggies like *dBASE*, *Lotus 1-2-3*, *MultiMate*, *WordPerfect* and *WordStar* on the DOS side to *MultiPlan*, *Excel*, *MacWrite* and *Word* on the Mac side. More translators are available on *MacLink*, so if you don't see your favorite programs listed here, don't let that deter you from checking out *MacLink Plus*.

One translator which will excite more than a few desktop publishers is the *PageMaker* PC-to-*PageMaker* Mac translator. As we've mentioned before in this column, programs designed for the Mac and PC should have compatible files. *PageMaker* seems to be a special case, however. We'll have a complete report on desktop publishing and graphics in a future column.

If the PC you want to transfer files to and from is out of the reach of the *MacLink* cable, you'll want to use a modem hookup. The only difference is a few settings in the Set Communications screen. You'll have to reduce the baud rate from *MacLink*'s high of 57,600 to whatever speed your modem supports. Again, the PC side waits for the call. On the Set Communications screen, you enter the phone number and click the connect button.



This Macintosh: MacWrite

Remote IBM PC: MultiMate

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- WordStar

MacLink lets you transfer files between popular Mac and PC applications.

MacLink's telecommunications capabilities aren't limited to Mac-to-PC file transfers. You can use it to connect to your favorite bulletin board. As with any communications package, you chose your baud rate and parameters, 1200 baud, 8 bits, no parity and 1 stop, for example.

Whereas dedicated telecomm packages will offer a variety of error checking protocols, such as XMODEM, YMODEM and Kermit, *MacLink Plus* only offers XMODEM. This is not a problem, however, as XMODEM is reliable for almost all telecomm transfers.

If you've been hedging on joining the connectivity movement, you now have no excuse. *MacLink Plus* is an inexpensive product that takes little time or effort to set up or use. Remember, if the Democrats can bridge the gulf between left and right, you can bridge the gulf between the Mac on one side of your desk and the PC on the other. Thank you, America and good night. (DataViz, 16 Winfield Street, Norwalk, CT 06955 (203) 866-4944.)

Mystery Files

I know that there are a lot of Mac users out there who have mysterious PC files appearing on your hard disk. Whether you're on a network connected to PCs, you happen to have an Apple 5 1/4" disk drive, or you telecommunicate with friends on DOS PCs, you're wondering what to do with them. Besides trash them that is.

A good suggestion it to try out the Apple File Exchange utility that came with your Mac. If you don't have it, you can get it along with the latest system from your local user group. It features many of the same translators that are found in *MacLink Plus* and other connectivity programs. It operates exactly like the Font/DA mover, only you translate files instead of moving them. Find out what those PC hackers are saying about you! ☐

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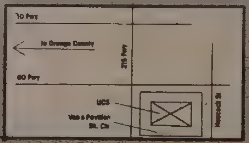

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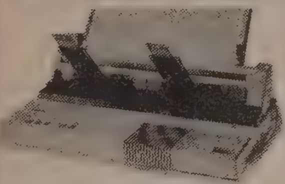

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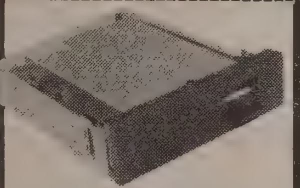

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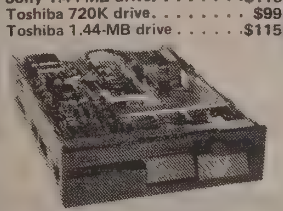

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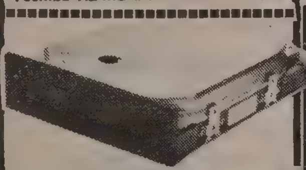

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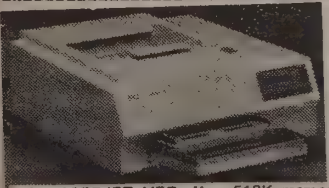

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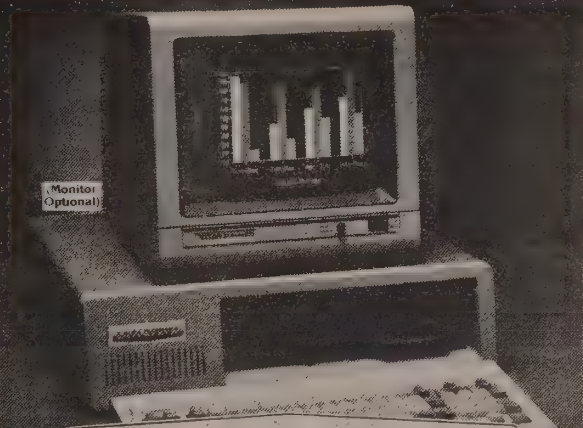

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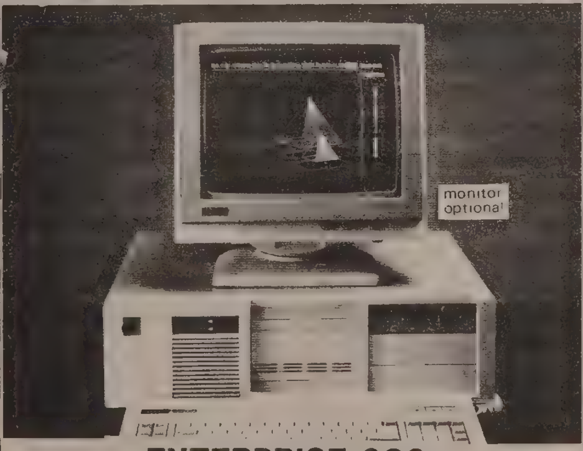

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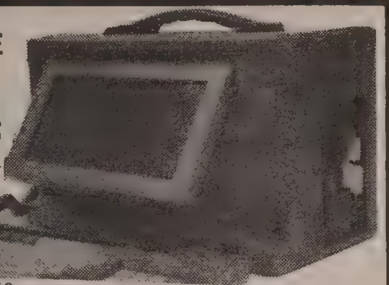

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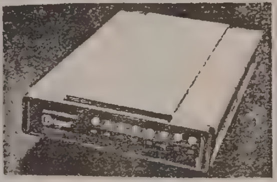
NEC Multispeed EL 2 drives.	$1495
NEC Multispeed EL,1dr. 20MB	$2295



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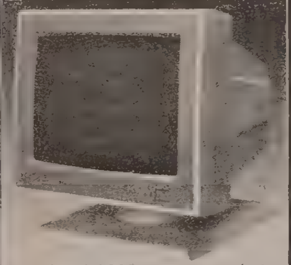

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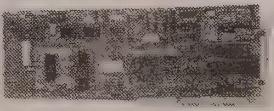

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Despro 286, 12-MHz,, 1 dr.	$1,725
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K&R II

A Short History Of C

By Bennett Falk

"Weird Mode" Dvorak [no relation] had been pounding at the keyboard for nearly two hours trying to get his program to run. He would type furiously for a few minutes, compile the program with a few keystrokes, and then hunch forward in increasingly noisy disbelief to watch it fail at run time.

When he had finally run out of changes to make, he walked over to my desk and spoke in an accusatory voice: "The compiler on this machine isn't full K and R, is it?"

"What?"

"K and R. This compiler doesn't have full K and R. I can't get my programs to run here."

It was August of 1982. I was sitting behind the desk at a time-sharing service ready to explain to anyone who would listen how to align their paper in the printer and I did not have a ghost of an idea what "Weird Mode" Dvorak was talking about. I resisted the urge to tell him it was a "C" compiler and had nothing to do with either "K" or "R."

Later I learned that "K&R" was a book: *The C Programming Language* by Brian Kernighan and Dennis Ritchie (Englewood Cliffs: Prentice-Hall, 1978). Written by C's authors, K&R was for several years the only available book about C, and it remains the definitive reference work for the language.

The C language described by the first edition of K&R was first designed at Bell Laboratories in 1972. The first C compiler ran on a DEC PDP-11 computer under the UNIX operating system of the time. Early on, C developed in two directions: the language was moved to different hardware platforms, and more complicated programming projects were undertaken including the re-writing of UNIX in C.

Early on, C developed in two directions: the language was moved to different hardware platforms, and more complicated programming projects were undertaken, including the re-writing of UNIX in C.

The first edition of K&R is a humane and scholarly work. It contains a brief tutorial in how C programs are constructed, a prosy description of the language's features with numerous short examples, and a short reference manual which describes the language so tersely it could easily pass for a design specification.

The tone of the book is professional but not humorless, and the authors pursue the task of describing the language with admirable single-mindedness. To the chagrin of beginners, the book is not about learning how to program. Though it includes many well-written examples and some commentary on programming style, it is not a manual of style or programming technique.

Those looking for a detailed discussion of how C compilers work have been similarly disappointed. Kernighan and Ritchie make the point emphatically: the language is not the compiler. While C compilers are guaranteed to respond to programs written in C, there are aspects of compiler design and implementation that are outside the scope of the language. When K&R I appeared, there were already a number of C compilers extant on various hardware platforms, and the authors were sensitive to the danger of writing programs to take advantage of any particular compiler's eccentricities.

Ten years after its first publication, a second edition of K&R has been released. It appears on the eve of final approval of a standard for C by the American National Standards Institute, ANSI. K&R II retains the structure and much of the text of the first edition, but it has been revised to bring the description of C into conformity with the proposed ANSI C standard. (Work on ANSI C has been underway since 1983 and will probably come to fruition this year.)

In the intervening decade, C has won widespread acceptance as a general purpose programming language, and there are now dozens of books about C and how best to use it. So many different compilers exist now that references to specific machines are largely irrelevant. The quaint chart of word sizes on machines the present day audience knows little or nothing about is gone. In addition, most of the comparisons with other programming languages, C with PL/1 for example, have been removed.

In the first edition there was very little discussion of the features of the standard library. The library was deemed to contain important but possibly machine dependent routines to support the built-in features of the language. The more critical library functions, primarily those dealing with input and output formatting, were discussed at some length, but no attempt was made at describing the use of standard libraries or listing the functions to be found in them. With the Second Edition, most of the standard library functions, their uses and related header files are described briefly in a separate appendix.

The text itself retains much of the first edition's character. Indeed, in rare cases the language of

continued on page 92

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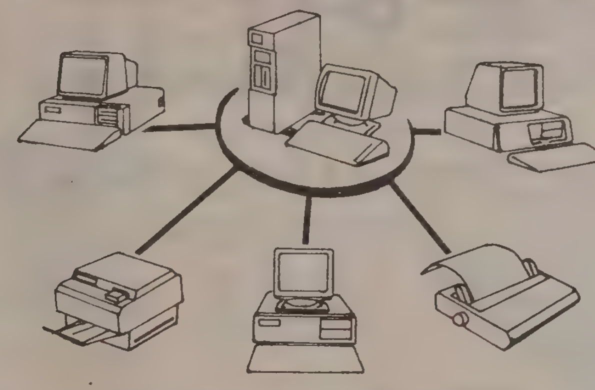

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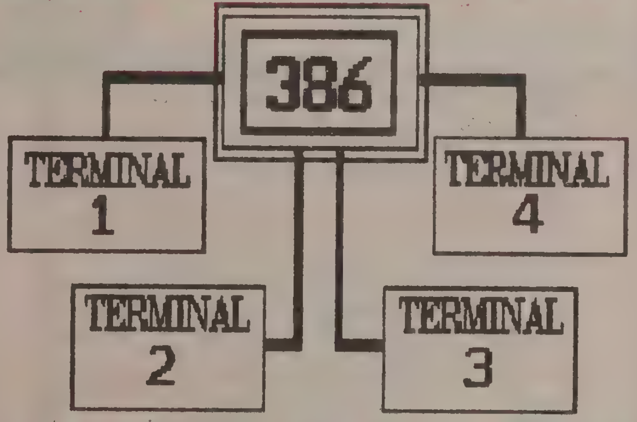

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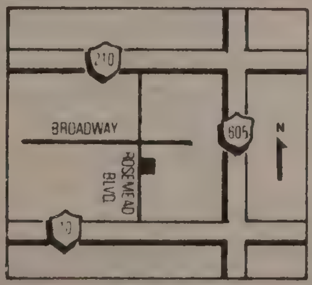

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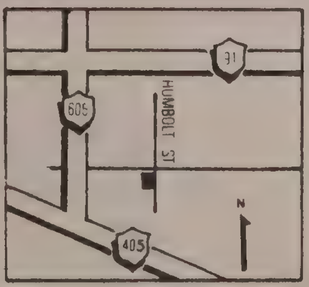

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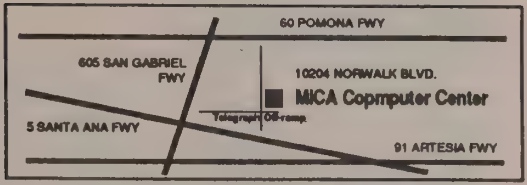

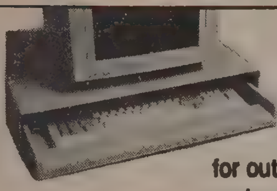

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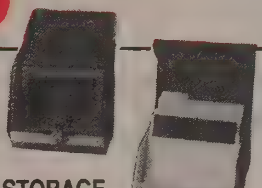

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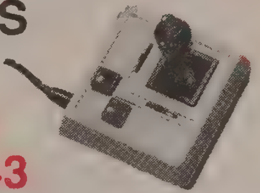

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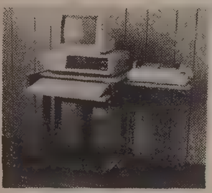

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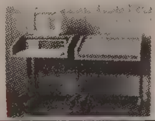

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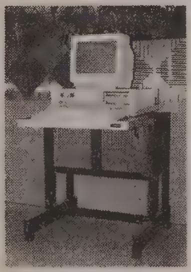

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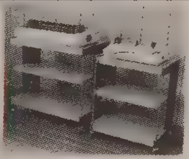

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Telecommunicating With FLASH

By David Hawkins

Logging into other computer systems is my life. It's what I do at work and what I do for fun. It's what I do when I'm bored. So telecomm programs get more use on my system than anything else. I own quite a few programs, but what I use is *FLASH*.

The Joys Of FLASH

The most important thing to me in a telecomm program is its terminal emulation. The Atari ST has a VT52 emulator as one of the standard desk accessories. But for logging into larger computer systems, a VT100 emulator is preferable. *FLASH* has the best VT100 emulator I've seen on the ST — and it's better than any VT100 emulator I've found on a Macintosh.

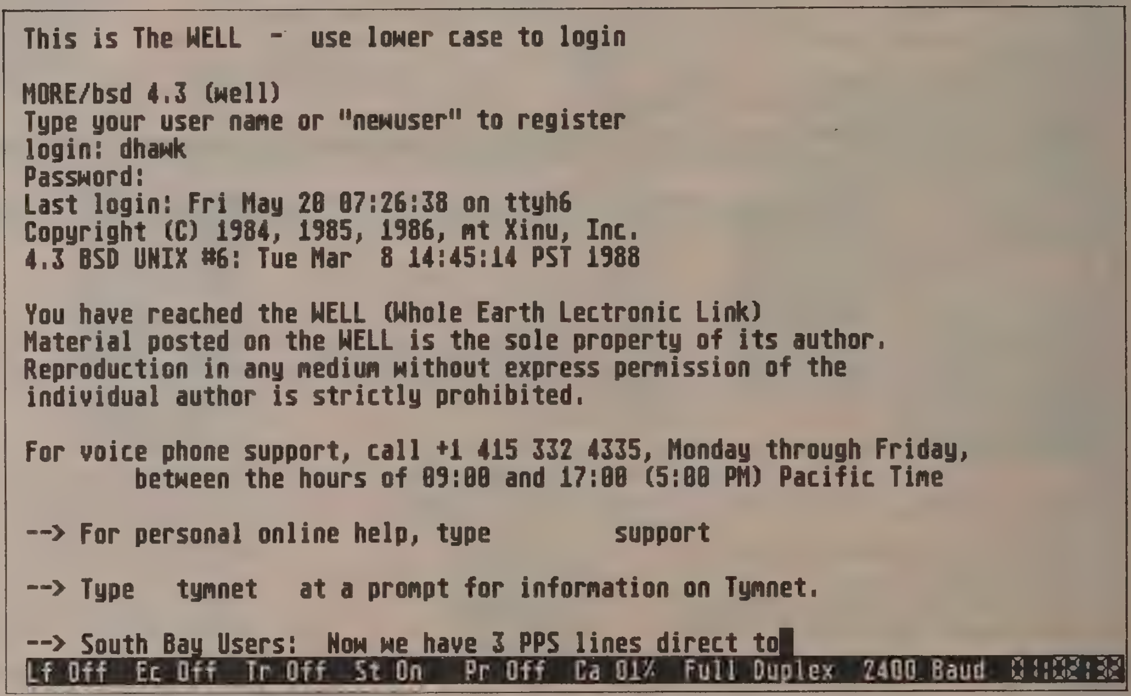
Some of the other features include macros and a programmable "script" language. The macros allow you to store commands or text to specific keys, which can help cut down on typing. The programmable "script" language makes it possible to create files that can run a series of commands without your constant attention. You can use this to login to a system, or to check for specific information, download it and log off.

The *FLASH* disk comes with a script that shows some of the capabilities of the programming language. The script will create another script for logging onto CompuServe. It asks for your user name and password, then writes a script that you can save and execute to log into CompuServe automatically.

The Word Processor

FLASH includes a GEM based word processor. While *FLASH* is running, you can get to the word processor by pressing the right mouse button. If you are capturing text from the remote system, it is held in the word processor. You can move to the word processor, edit the text, return to the normal display screen and upload the text while logged in.

The word processor includes features like word wrap, block moves and deletions, reformatting paragraphs or blocks of text, and a search and replace function. You can use the mouse to move around the screen, and scroll bars are available for moving through the text. The upload function in *FLASH* will allow you to send the text in the word processor to the remote computer by either an ASCII or XMODEM transfer.



```
This is The WELL  -  use lower case to login

MORE/bsd 4.3 (well)
Type your user name or "newuser" to register
login: dhawk
Password:
Last login: Fri May 20 07:26:38 on ttyh6
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4.3 BSD UNIX #6: Tue Mar  8 14:45:14 PST 1988

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--> South Bay Users:  Now we have 3 PPS lines direct to
Lf Off  Ec Off  Tr Off  St On   Pr Off  Ca 01%  Full Duplex  2400 Baud  01:02:32
```

The main screen of FLASH, showing login session. Settings shown at the bottom of the screen can be changed on a command line, or by switching to the program's other screen and using the pull-down menus.

On The Down Side

While I like *FLASH*, there are a few problem areas. The first is the manual. It was written for version 1.0 of *FLASH*; the program is now up to version 1.6. The changes from the printed manual are on the disk and should be printed up. Unfortunately I didn't have a working printer at the time and it was very difficult to check the changes in the manual and work with *FLASH* at the same time. The manual is supposed to be rewritten when *FLASH* 2.0 is released, but that's not coming up any time soon.

Writing login scripts in *FLASH* was not easy. It took a while to figure out what the error messages meant and how to correct them. Right now I've got two scripts that don't work correctly and I still have no clue as to what's wrong with them. They don't produce error messages, but they don't do the correct thing at the proper time.

> **For logging into larger computer systems, a VT100 emulator is preferable. FLASH has the best VT100 emulator I've seen on the ST — and it's better than any VT100 emulator I've found on a Macintosh.**

Personally I'd like for Kermit, a file transfer protocal, to be built-in for *FLASH*. Even if I had the separate program from The Catalog, I'd want all my download/upload options to be grouped together when I get ready to decide between them.

Still, I think *FLASH* is the best telecomm program available for the Atari ST. It's not copy protected, so I was able to install it on the hard disk. In spite of some initial frustration, I've grown to like it more and more.

David Hawkins is the host of the Atari conference on The WELL (415/332-6106); send email to dhawk. He can also be reached as David Hawkins on the Guild (415/771-7062). He has one of the first Atari ST 1040s sold in San Francisco, both monitors, an Okimate 20 color printer, and disks all over the room.

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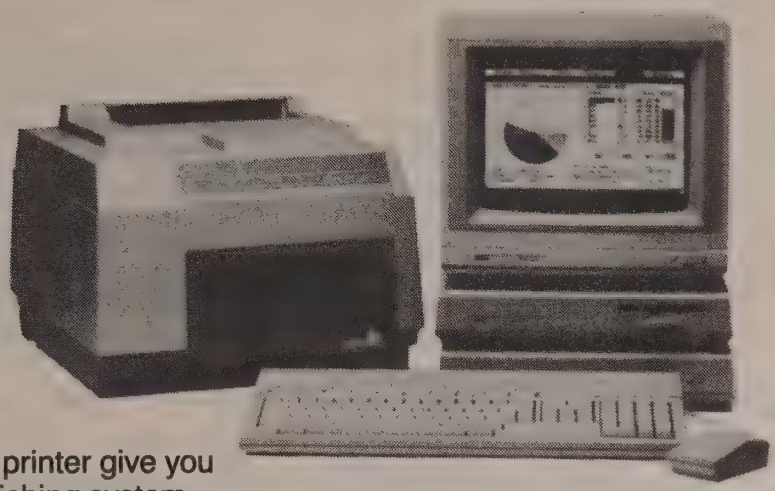

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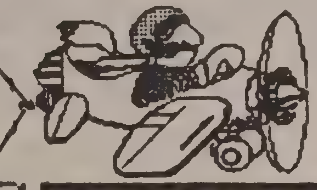

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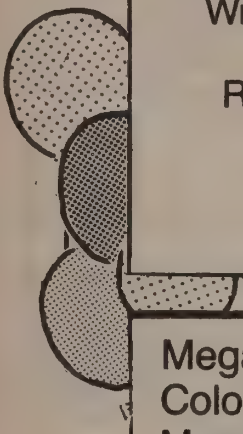

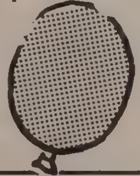

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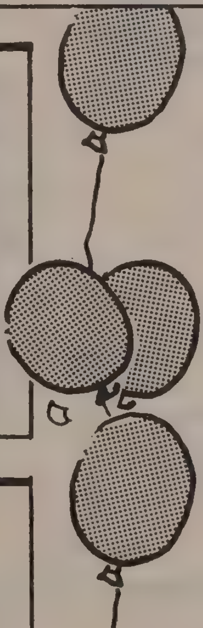

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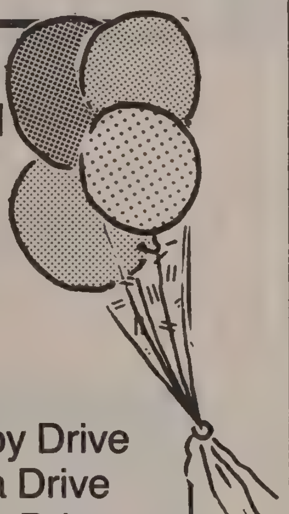

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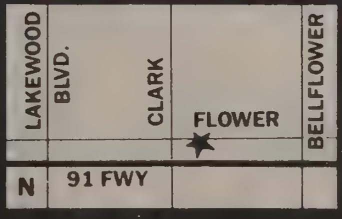

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Life With An Atari Laser Printer

I've been using the Atari Laser Printer for the past month. The setup had some interesting moments, but the output has been excellent.

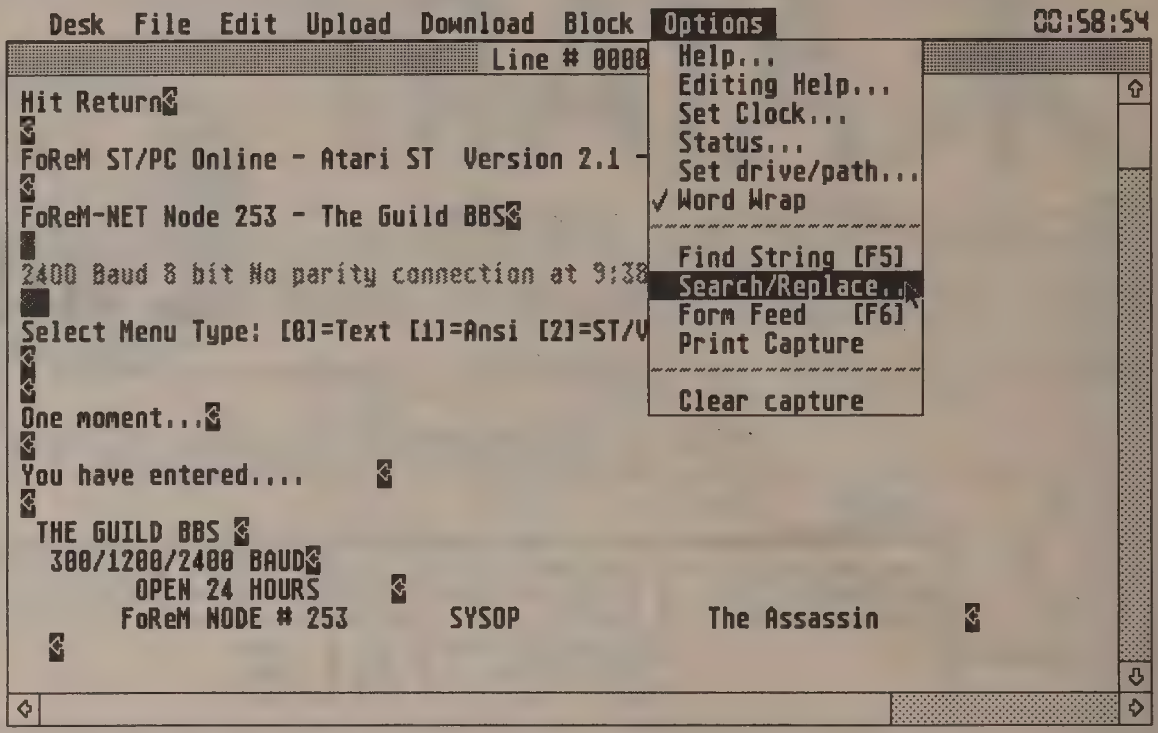
The Laser Printer comes in a huge box, so borrow a small pickup truck when you pick it up. Then you get to assemble it. This isn't too bad a job if you follow the directions. I read through the instructions twice before starting to put the pieces together. After that, it went smoothly. I had read reports that installation was difficult, but either someone didn't read the instructions or Atari has improved them since the first release.

Running the Laser Printer was a bit more difficult, but it wasn't all Atari's fault. When you add a large device to a customized setup like mine, you'll often find problems. I sure found a few.

First, I have a hard disk. The Laser Printer uses the hard disk port of the ST. So you unplug the hard disk, plug the printer controller into the hard disk port and plug the hard disk into a port in the back of the printer controller. The problem here is that the power to the printer controller comes from the Laser Printer. The instructions say to keep the printer off when you're not using it. So if you start up your system, do some printing and then turn off the printer, you lose access to your hard disk. Turning everything on and off to continually swap around cables is a real hassle.

Second, once I hooked up the printer and turned on the ST, I could do great screen dumps to the printer. But I found that no matter what printer I picked in my word processing programs, nothing would print directly. After a lot of work and hassle I figured out that DeskCart!, a cartridge in the cartridge port, was the culprit. I unplugged it and everything worked fine.

The Laser Printer works well with the Mega 2 and the Mega 4. It's much more limited with the ST 520 or 1040. I used the Laser Printer with a Mega 4 for a desktop publishing newsletter and was very happy with the results. The Laser Printer does not have its own internal memory and has to use the computer's memory in order to print a document that includes graphics or fonts. So if you have a Mega computer, the Laser Printer might be the best bet for low cost laser printing. ☐



```
Hit Return

FoReM ST/PC Online - Atari ST  Version 2.1 -

FoReM-NET Node 253 - The Guild BBS

2400 Baud 8 bit No parity connection at 9:38

Select Menu Type: [0]=Text [1]=Ansi [2]=ST/V


One moment...

You have entered....

 THE GUILD BBS
  300/1200/2400 BAUD
        OPEN 24 HOURS
       FoReM NODE # 253       SYSOP              The Assassin
```

FLASH also has a built-in word processor, with several pull-down menus available.

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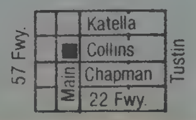

AMIGA

New Improved Graphics

By Matthew Leeds

There has been a remarkable number of new Amiga graphics products released in the last few months. This is not to say that is the only category where developers have been working, but a few of the new products are well worth mentioning.

New Software

Lange-Miller Computer Graphics has released the *3D Animation Toolkit*. This is exactly what it sounds like--a toolkit collection of utilities, modules, and even source code. This product is of interest to users of *Videoscape* and *Sculpt 3D*. It lets you convert *S3D* objects to *Vscape*, draw motion paths in *S3D* and convert them to *Vscape* object and camera motions, and convert text to 3D letters.

It will also let you create sophisticated pairing of camera and object motions, realistic motion that correctly obeys the laws of physics, explosions of objects, and a variety of other effects. The whole package is modular for the easy addition of new custom routines; it multitasks easily with either program, and is not copy protected (easy installation on a hard disk). The explosion module alone is worth the price, and the price is only $29.95. If you use *Sculpt 3D* and/or *Videoscape*, get this program.

One of the main reasons third party products like the *Animation Toolkit* have come along is that some users are not satisfied with the features (or lack thereof) of the major 3D programs currently available. Some users feel that the interfaces are too slow, or too awkward. *Videoscape* in particular has been faulted for its object creation interface. Programs like the *Animation Toolkit* and *Interchange* let users convert *Sculpt 3D* objects to *Videoscape* format, since many users prefer the faster rendering times that *Videoscape* offers (although the images are often not as complex).

Mimetics (makers of *SoundScape*) have released *3-Demon*, a 3-D object modeler program; it creates objects that can be used with *Videoscape, Sculpt 3D, Silver* and *Forms In Flight*. It can also be used to edit objects already in *Vscape* or *S3D* format.

3-Demon's user interface is unique. You work in a single pseudo-3D window. Virtually every option is a separate module (shades of *SoundScape*) and each module opens its own window on the screen. You can view objects in a quick wire-frame rendering, a B&W solid shaded image, or a colored solid rendering. All rendered images can be saved as IFF images should you desire.

There's more to *3-Demon* than its renderings though. It is an object editor which offers a lot of tools. It handles hierarchical object construction, spins and extrudes, scaling, rotating, moving, coloring, copying,and editing on single points, edges, surfaces or entire objects. It offers coordinate readouts, alignment grids, selective display of surface elements, and optional multi-perspective display windows.

You can edit surface characteristics like reflectivity, transparency, refractivity, and color. A mini-help function is built into the title bar. If you are dissatisfied with the object editor built into your current 3D program, take a look at *3-Demon*.

Ported From Other Environments...

Good software doesn't care what its parentage is. Occasionally software will reveal something of its ancestry in its design or function. Witness *WordPerfect*'s use of multiple keystrokes for options and strange memonics as inheritance from its MS-DOS roots. This is not always a bad thing, but programs written originally for the Amiga often have a flavor all their own.

A new animation package coming for the Amiga, called *Zoetrope*, started life on the Atari ST. The Cyber Graphics group of programs from Antic Software is a well executed set of graphics and animations programs that interact well. Jim Kent, of *Aegis Animator* fame, has been converting and enhancing this set of programs for the Amiga. *Zoetrope* will handle cel and ADO animation, color and pixel effects, masks and layered effects, and will offer 3D delta file compression for animation. Keep an eye out for it.

New Hardware And Systems

Future Touch is an integrated touch screen system for the A2000. It includes a screen applications development toolkit, the TouchSystem system interface software, and a touch screen monitor with 2056X2056 touch points resolution. It uses a resistive overlay monitor, but other technologies are available including capacitive overlay, scanning infrared, and surface acoustic wave. The system is not inexpensive, but it's good to see a vendor targeting the Amiga specifically with this technology.

*TV*Show* from the Zuma Group (distributed by Brown-Wagh) has been enhanced to include support for HAM, overscan and NTSC/PAL options. It offers a mouse and menu driven script editor for producing presentation graphics displays. Included are over 50 image transitions such as rolls, reveals, wipes, fades, flys and cuts. Color cycling is also supported. Brushes can be wiped or flown onto the screen independently at any time in any number. A standalone player program lets you distribute your finished presentations to as many locations as you desire.

If you are working in animation rendering, times are of prime importance to you. Even a few seconds of ray traced animation can take days or even weeks to render. Hardware accelerator boards for the Amiga can cut rendering times dramatically. CSA has announced the "Over 030" board, a 68030-based daughterboard for CSA's 68020 board for the Amiga. CSA is also offering the new 68882 math co-processor chip at speeds of up to 25 MHz. Combined with 32 bit wide memory, this kind of hardware accelerator can cut a week's worth of rendering into a single day's work.

The Impact A2000 SCSI/RAM controller is an A2000 expansion card that provides DMA SCSI hard disk control with room for up to one Mb of fast RAM. It also has an external SCSI connector, autoboot capability and support for the FFS. The Impact A500 HD/RAM controller is a slap-on-the-side expansion unit for the A500 that contains a SCSI/DMA 20 Mb hard disk with SCSI pass-through connector and room for up to two Mb of fast RAM. It has its own power supply, autoboot support and support for the FFS. The entire line looks well designed and solidly built. ☐

Resources:

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Matthew Leeds has been involved in the high tech field since he blew up his bedroom playing with a children's chemistry kit. He has been using Commodore computers since 1982 and has a strong interest in photography, video, graphics and related fields. He currently works for Infinity Software.

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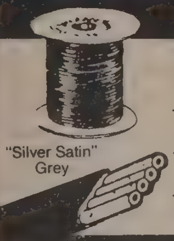
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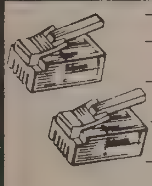

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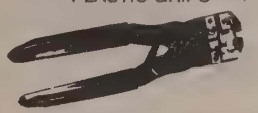

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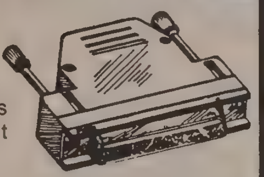

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9F-6 ....DB-9	Female to 6 Pin RJ Jack	

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	4 CONDUCTOR SINGLE	4 CONDUCTOR DOUBLE	6 CONDUCTOR SINGLE	6 CONDUCTOR DOUBLE	8 CONDUCTOR SINGLE	8 CONDUCTOR DOUBLE
1-24	2^{49} ea	3^{69} ea	3^{69} ea	4^{29} ea	4^{95} ea	7^{95} ea
25-99	1^{80} ea	2^{49} ea	2^{69} ea	3^{29} ea	3^{75} ea	5^{50} ea
100 +	1^{20} ea	1^{60} ea	1^{80} ea	2^{19} ea	2^{50} ea	3^{80} ea

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50-99	.99 ea.
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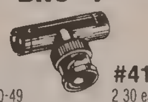

#41

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50-99	2.12 ea
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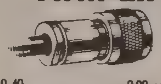
Twin-ax Connectors



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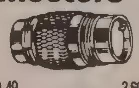

10-49	3.69 ea.
50-99	3.35 ea.
100-999	3.09 ea.

3^{99} each

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10-49	1.74 ea.
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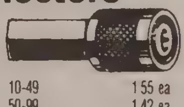

10-49	1 55 ea
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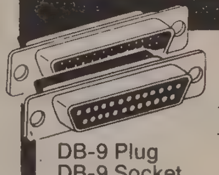

Industry standard connectors for data cables - computer systems - peripherals. Connectors feature insertable pin and socket contacts that are easy to insert or remove.

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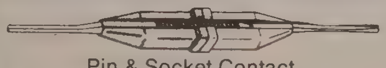
DB-9 Plug	.72	.55	.50	.40	.34
DB-9 Socket	.72	.55	.50	.40	.34
DB-15 Plug	.76	.59	.54	.44	.38
DB-15 Socket	.76	.59	.54	.44	.38
DB-25 Plug	.78	.61	.56	.46	.40
DB-25 Socket	.78	.61	.56	.46	.40

INSERTION/EXTRACTION TOOL



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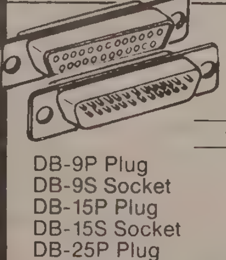

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DB-9S Socket	.72	.54	.42	.39	.35
DB-15P Plug	.85	.65	.51	.47	.43
DB-15S Socket	.97	.77	.60	.55	.50
DB-25P Plug	.97	.77	.60	.55	.44
DB-25S Socket	.97	.77	.60	.55	.44

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Freedom Of The Printer

Desktop Publishing On Eight Bits

By Mike Markowitz

"Freedom of The Press belongs to those who own one." For over four hundred years, A.J. Liebling's cynical observation was literally true. Although Gutenberg made it possible for everyone to be a reader, it took Xerox to make everyone a publisher. When the industrious Japanese made the dot-matrix printer as cheap as a stereo amplifier, it was inevitable that everyone would also want to be a typographer, layout editor, graphic designer, in short, a desktop publisher.

A page is a lot of information, as every writer who has ever had to fill one knows. A page of text and graphics represents a lot more information than the graphic screen memory of a standard Apple II can hold. To create any sort of page layout program for such a modest little computer requires some compromises, and a good measure of creative programming.

Apple II desktop publishing is essentially a school and home market. The *PageMakers* and *Venturas* of this world may scoff at this "low end," but some remarkable products are appearing, and some veteran programs are gaining new functionality. This review does not consider programs designed for the IIGS, and there are many other programs we have not had the chance to evaluate yet. It is quite possible to drive a laser printer with an Apple II, and now that Apple IIs can be networked with Macs, it may even become socially acceptable...

Springboard Publisher

Eagerly awaited, months later in shipping, *Springboard Publisher* was an immediate disappointment. The picture is not entirely bleak, however.

Beautifully packaged and superbly documented, the program is impossibly sluggish. This is software only a three-toed tree sloth could love (...those adorable Amazonian critters are the slowest living mammals). On a typical IIGS system, it reportedly takes five seconds to select a word, 30 seconds to delete it, over a minute to change the word to bold type, and over two minutes to change the font. If you have over 768K of RAM, you can load the program into a RAM Disk, which makes it run about twice as fast.

"The *PageMakers* and *Venturas* of this world may scoff at this 'low end,' but some remarkable products are appearing, and some veteran programs are gaining new functionality."

In June, Springboard began shipping a 5.25" disk version of the program that was not copy protected (a welcome change of heart, and a victory for market forces). Some small performance enhancements include the ability to turn off automatic page reformatting, so you can make multiple changes without having to wait for each one to ripple ponderously through the document.

Springboard is offering a LaserWriter printer driver as a separate $39.95 add-on. A package of style-sheets for formatting newsletters sells for $29.95. *Springboard Publisher*'s $139.95 list price includes your choice of a clip art disk. You have to mail in a card for it — there's one for schools, one for holidays and one with an assortment of graphics.

At worst, Springboard bit off more than it could chew, attempting to emulate the performance of the Mac's 32-bit, 7.8 MHz processor on an 8-bit, 1.0 MHz machine. At best, they released this product well in advance of the Apple II speed enhancements we should all be seeing Real Soon Now. These include third-party speedup chips for the IIe/IIc and accelerator cards for the IIGS. It is hard enough for the little Apple II to manage the screen as a Mac-like graphic interface. To ask it to perform complicated tasks, like wrapping multi-font text around pictures, is quite an overload. I would not write this program off completely yet, but I would not recommend it until I see a new release with some dramatic performance improvements.

GEOS

GEOS is a whole new operating system, with ProDOS 8 file compatibility. The heart of GEOS is the deskTop, where you manage files and launch applications by pointing and clicking. The GEOS deskTop resembles *Windows* or GEM as much as the Apple Desktop. Two major applications, *GeoWrite* and *GeoPaint*, are included in the package, along with a spell checker, a 28,000-word dictionary, desk accessories and utilities. Future applications include *GeoPublish*, *GeoProgrammer*, *GeoCalc* and *GeoFile*.

GEOS is packaged in a slipcase, with a looseleaf, 3-hole IBM-style binder. The manual is clearly organized, well-illustrated and indexed. The software takes up both sides of three 5.25" disks. For Apple IIe owners who do not have a mouse, there is also a tiny board (two chips and three resistors), which goes in Slot #7 to provide the "interrupts" GEOS requires. GEOS works best with a mouse, but you can also use a joystick or the keyboard.

While the Apple Desktop holds as many file and folder icons as you can crowd onto the screen, the GEOS deskTop is limited to eight icons per "page." To see more of the icons on your disk you have to "flip" through the pages. On the GEOS deskTop (yes, that's how it's spelled!!!), you click once to select, click again to drag and click once more to deposit something in the Wastebasket icon.

GEOS is fiercely copy-protected. The boot disk

Mike Markowitz is a computer engineer for a large Southern California aerospace company. He has been writing about Apple II computing since the Palaeotronic Era (c.1984 A.D.). You can reach him on AppleLink Personal Edition (MOUSKOWITZ) or The Source (SIG060).

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contains a hidden "kernal" file that cannot be copied. One backup disk is included in the package. The other disks can be copied, but without a valid boot disk, you cannot start up a GEOS application. A complex installation procedure requires you to permanently record your name on every GEOS application before you can use it. GEOS allows only one hard disk installation per boot disk — it creates a ProDOS system file, but also installs the hidden "kernal" file, which can be trashed by certain hard disk utilities.

Many potential buyers are turned off by software that treats its user as a potential thief. Copy protection is increasingly a poison in the marketplace, whatever a program's features or performance.

GeoPaint

GeoPaint is a bit-mapped graphics program. According to Brian Dougherty of Berkeley Softworks, it uses the same bit-image format as the Macintosh screen. On the Apple II hi-res screen, which has a different aspect ratio, this distorts images by "stretching" them vertically. A true circle looks like a football, and a true square becomes a tall rectangle. Everything prints out in the proper proportions, however.

GeoPaint provides 14 different graphic tools, 32 different brush shapes, 32 monochrome patterns and handy Zoom and page preview options. You can "hide" the tool icon bar if it gets in your way. You add text to a graphic by defining a Text Region of up to 254 characters.

Photo Manager, a GEOS utility program, can be used to store graphics in multiple "photo albums" on a disk. An album can contain up to 127 pages of graphics. You can easily paste a graphic into a *GeoWrite* document. At present there is no way to convert graphics from other formats, but a forthcoming "graphics grabber" desk accessory promises to import *Print Shop*, *Newsroom* and *PrintMaster* graphics.

GeoWrite

GeoWrite is a full-featured word-processor that supports multiple fonts and type styles. Nine handsome fonts are included with the package — some with as many as six sizes. You can easily select italic, bold, underline, outline and other styles. Default margins are at 0.7 and 7.7 inches, and changing them is not fun. On the "ruler bar" at the top of the page, tiny symbols for tabs, paragraph indentation and margins overlap and hide one another. Even the manual admits that "This can sometimes be confusing." I found it infuriating. It should be possible to set tabs and margins without having to fish for tiny symbols.

Text Grabber, another GEOS utility, can convert *AppleWorks*, *WordPerfect*, *MultiScribe* and plain ASCII text files to *GeoWrite* format. GeoMerge is a standard mailmerge program integrated with *GeoWrite*. GeoLaser is a printer driver for the Apple LaserWriter. The GEOS package contained a flyer from a service bureau that offers fast turnaround on high-quality laser printing of GEOS documents.

On the up-side, GEOS is fast. The programmers at Berkeley Softworks won their spurs squeezing maximum performance out of the Commodore 1541 disk drive, a device even slower than the Apple Disk II. On an Apple 3.5" drive, the performance of GEOS is even more impressive, since several applications can reside on one device.

GEOS supports 25 different printers and most popular serial and parallel interfaces (including the IIGS serial port). Users who are already familiar with GEOS on the Commodore 64, however, should be delighted with the way it runs on Apple hardware.

Children's Writer And Publisher

The Learning Company planned to ship this program by the end of June. It was not available for review at this writing, but I saw a demonstration at COMDEX. It provides simple, intelligent, limited choices for text entry and page layout, with a basic collection of clip art. Performance was snappy and color printing was supported. Looks like the ideal introduction for the littlest typographers...

Fontrix/Printrix

Fontrix was the first product to provide high-quality typefaces for the Apple II. *Printrix* updated the idea for the ProDOS operating system. The Apple *Fontrix/Printrix* Club offers an impressive array of utilities, clip art disks and updates for users of these powerful but tricky programs. PO Box 29857, Thornton, CO 80229-0857. ☐

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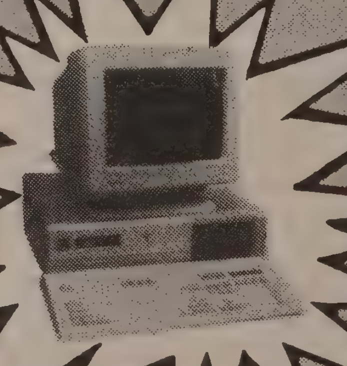

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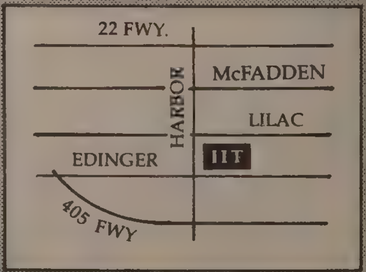

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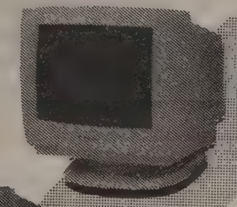

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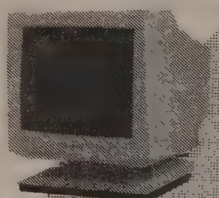

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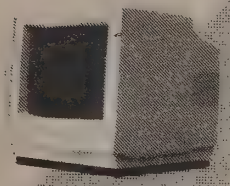

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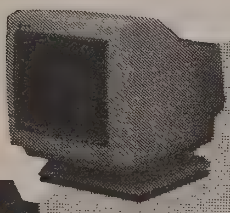

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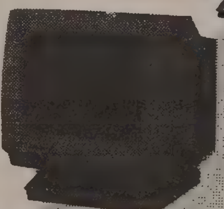

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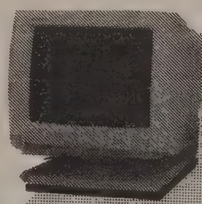

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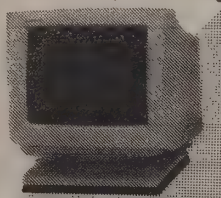

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USER GROUP NETWORK

By Mary Eisenhart

Are you a programmer? Are games your life? Want a fun-filled weekend in beautiful downtown Milpitas? Well, then, this flyer which was thrust into my hands at the Software Entrepreneurs' Forum might be of interest to you.

It's about the **Computer Game Developer's Conference**, which happens on Sunday and Monday, the 18th and 19th of September, at the Holiday Inn in Milpitas. There will be both design- and business/technical sessions on a variety of topics, and some of the industry's best designers will be speaking. Sponsors are **Tim Bringle**, **Chris Crawford**, **Stephen Friedman**, **Jeff Johannigman**, **Brenda Laurel** and **Dave Menconi**.

If you'd like more info, write to The Journal of Computer Game Design, 5251 Sierra Road, San Jose, CA 95132.

Computer Learning Month is coming in October, and this year user groups are being invited to participate as sponsors. The purposes of Computer Learning Month, which is the result of the extensive collaboration of hardware and software vendors and other industry leaders, are to increase public awareness of how computers are used as tools in home, school and workplace, to provide programs for schools, universities and community groups to experience the benefits of technology, to stimulate the innovative use of computers and to promote equal access to computer learning.

In order to become a CLM user group sponsor, the group must agree to distribute CLM information to its members and to host a Computer Learning Month event on October 1, the official kickoff day. User group events are intended to help local people unfamiliar with technology get to know some of the possibilities which computers open up.

Sally Bowman, one of the CLM contacts, says "The CLM and user group partnership is an ideal one because user groups are in constant contact with their local communities and can help distribute to the public the vast amounts of information that CLM has developed." So if this sounds like a worthy cause to you and your group, write to CLM User Group Program, P.O. Box 60967, Palo Alto, CA 94306-0967.

Elsewhere in the Valley, the **Silicon Valley Computer Society**, a multifarious PC group, has a couple of new SIGs some of you might like to check out. The **Microsoft Word Users Group** of SVCS meets on fourth Mondays from 7:30 to 9:30 pm at Hewlett-Packard in Cupertino, in the Oak Room in Building 48. That's on Pruneridge, 100 yards east of Wolfe, off Highway 280. Meetings consist of roundtable discussions of features, bugs, and other favorites, plus presentations by the speaker of the month. The August meeting on the 22nd will feature **Chris Donner** of Access Softek on using *Dragnet* for text retrieval and management. The October 24 meeting will offer a presentation by **Linda Cavenaugh** of Softcraft Inc. on fonts for laser and dot matrix printers. If you'd like more info, call **Bill West** at (408)356-8805.

Another new SVCS SIG is the **Women's Special Interest Group**, which is for all women interested in computing, SVCS members or not. The WSIG will be meeting on August 22 at Hewlett-Packard, 5301 Stevens Creek Boulevard, in Santa Clara. **Susan Brown** of Brown Communications will speak on "How and When to Start Your Own Business," and the meeting starts at 7:30 pm. The meeting is free, and you can call **Rita Zokaei** at (415)574-8225.

Programmers take note: **Badshah Mian** has started the **COBOL and SQL Users Club**, and invites you to call him at (415)337-1787 if you're interested in its activities. And from Fresno, **George Bearden** writes to inform us about the **Central Valley Professional Programmer's Society** and the **Fresno Clipper Users Group**, both of which you can find out about by writing to **Thomas Weil**, 1283 W. Keats, Fresno, CA 93711.

On a somewhat vertically-oriented note, if you work in interactive videodisc and optical disc technology and are interested in getting those nice lucrative government contracts, you might want to have a little talk with **Robert Steel** in Los Angeles. Robert's just started the **Special Interest Group in Government Contracting**, a SIG of the LA chapter of the **International Interactive Communications Society**. Meetings are held periodically in the Los Angeles area and future presentations include treatments of such issues as networking, red tape avoidance, and MIT's Media Lab. Call Robert at (818)363-0272 or (818)709-9658 if you'd like to know more.

Another highly specialized group that's turned up recently is the **ANImated People's User Group**. **Tom Messerschmidt**, who can be reached at (408)226-9225, tells us: "In the spirit of *Max Headroom* and *Hitchhiker's Guide*, we're attempting computer digitization-animation of real-people personalities." The group is located in San Jose.

In Novato, the **GravenStein Apple IIGS Users Group** held its first meeting on June 18th with a small but dedicated group, and is looking forward to great things. Its goals are exploring new and existing applications for the IIGS, generally encouraging use and development of the machine, and taking advantage of the group's numbers to obtain quantity discounts on equipment and material. Meetings will be held on the third Saturday of the month from 10 am to approximately 1 pm, at the Coddingtown Mall in Santa Rosa. For information or directions, you're invited to contact **Aaron Lamar** at (707)938-8479 or **Robert Wolchock** at (415)897-9928.

New BBSes of interest include the **Online Goldmine**, a free-of-charge videotex system which offers classifieds, electronic yellow pages, messaging, trivia, jokes and horoscopes. You'll receive the PRESTEL protocol for graphics on registration; non-registered users receive text-only information. The board operates in San Leandro at 300/1200 baud, 24 hours a day, at (415)352-5087, 7-E-1.

Fantasy/role-playing enthusiasts might want to check out the **Multiversal Trading Company**, (213)438-0039, 8-N-1. It's run by the denizens of Dragon Tree Press for fans of Arduin Grimoires and World of Delos/Amazon Mutual. It's a free board with online ordering service and a catalog for FRP-oriented books and playing aids. Future incarnations of the board will include fanzine features and online fantasy games.

Scuba divers, there's a board for you too. It's **Scuba-Net**, which operates in San Francisco from 8 pm to 9 am at (415)243-9461, 8-N-1. It's dedicated to scuba and free diving, and your host is **Charlie Eng**.

And finally, if you're perplexed with *PageMaker* or vague on *Ventura*, you might want to call the **Desktop Publisher's HelpNet** at (408)730-4521, 1200/2400, 8-N-1. All computers are supported; registration is required, but once you've done that there are many resources available, from clip art files and layout templates to Linotronic service. There's also a voice number, (408)730-0844, if you just can't wait.

That's about it for now—keep those cards, letters, listings and other good stuff coming. Send email to **microx** on The WELL (415/332-6106) and send the US variety to User Group Network, 5951 Canning Street, Oakland, CA 94609.

BULLETIN BOARDS

INTERNATIONAL

FidoNet Argentina (054). (011) 541-22-419. 8-N-1 3 PM-11 AM PST. The 1st fido node in Argentina has over 450 subscribers. Specializes in issues from S.A. PD software library to d-load. Sysop: Pable Kleinman

Cassia Express. (065) 344-9163. 300/1200/2400 24 hrs. Singapore. Sysop: N.M.Rahman

Remote Bulletin Board (Singapore). (065) 445-1646. 9600/2400/1200 24 hrs. 218 MB Online (IBM upload/download). Sysop: Umar A. Rahman

203

Terrapin Station. (203) 656-0134. Grateful Dead Board. Sysop: Klaus and Gretchen Bender.

209

Bertha Board. (209) 239-9853. 300/1200/2400 8-N-1 24 hrs. MS-DOS, others. Some emphasis on programming. Up- & downloads. Free. Registration required. Sysop: Kenneth Roach

Silicon Realms. (209) 754-5530. 300/(1200 Soon) 9:30AM to 6:30AM.Formerly Motherload 64. Commodore, PET & Plus/4. Programmers board, Continuing & Short Story boards, FRPG. Sysop: Joe Commodore

The Backdoor BBS.(209), 952-9430, 300/1200/2400, 8-N-1, 24 hrs. MS-DOS oriented board. Lots of software, online chess game, much more. Sysop: Randall Fox.

Bertha Board BBS.(209), 239-9853, 300/1200/2400, 8-N-1, 24 hrs. MS-DOS, others. 95 Mb online. Emphasis on programming. Uploads and downloads. No fee but registration required. Sysop: Kenneth Roach.

Oasis Software Library.(209), 823-2803, 300/1200/2400, 8-N-1, 24 hrs. Shareware and PD for IBMs and compatibles. No fee but registration required. Sysop: Tim Campi.

212

RadNET OnLine Services 24 hrs. Online computer network for Nuclear Medicine professionals. Offered through Compuserve. Regular on-line conferences. Call for information and registration. Voice phone: (212) 856-6449.

213

Ashton-Tate Support. (213) 538-6196. Free technical support, answers to questions about Ashton-Tate software products.

Carrier Point Information. (213) 423-4999. 1200/2400 8-N-1 All but 1:30-3:30 PM. TBBS multi-user system. Operating 10 lines, 9 in rotation. All lines support 300/1200/2400 baud rates.

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Dial-Your-Match. (213) 539-2448. Lomita.

Dial-Your-Match. (213) 633-4349. Downey.

Dial-Your-Match. (213) 461-9899. Hollywood.

Dial-Your-Match. (213) 467-6776. Hollywood.

David's Amazing BBS. (213) 459-5891. Conferencing (like the Well, but easier to use). Electronic bar; talk; matchmaking; 5 lines; unique software. Sysop: David Dennis

ICN. (213) 204-0646. 2400/1200/300 24 hrs. The place to buy/sell/trade collectibles (stamps, books, etc.)

Information Symposium. (213) 258-5086. 300/1200/2400 8-N-1 24 hrs. Serving the Info. Professional, Tech. Info, M.I.S. Employment. MS-DOS; OS/2; graphics. Password req'd for access is "Micro." Sysop: William Bloomer

Lynzie's Motherboard. (213) 650-0519. 300/1200/2400 8-N-1 24 hrs. Multiinterest. Social events for users. If you're looking for a discriminating BBS, this is the place to be. Sysop: Lynzie Flynn

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Southland News. (213) 402-4079. 24 hrs. An online newsmagazine w/ general news, comments, entertainment, computer

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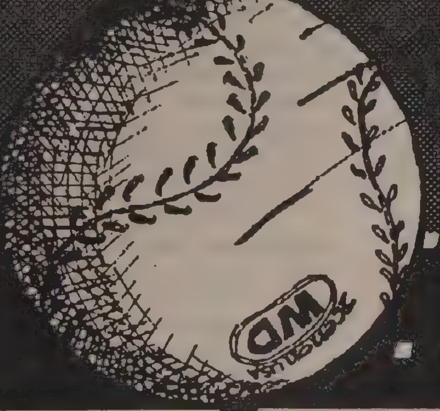

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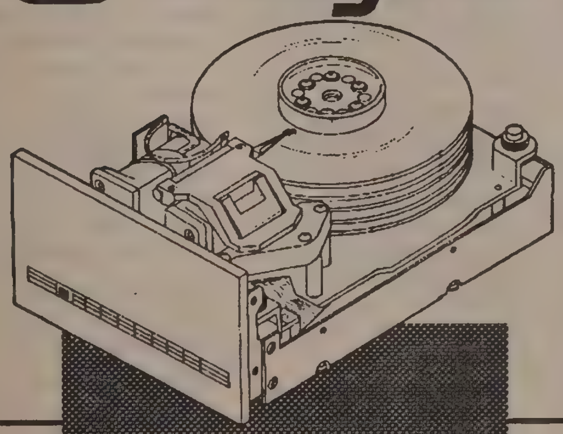

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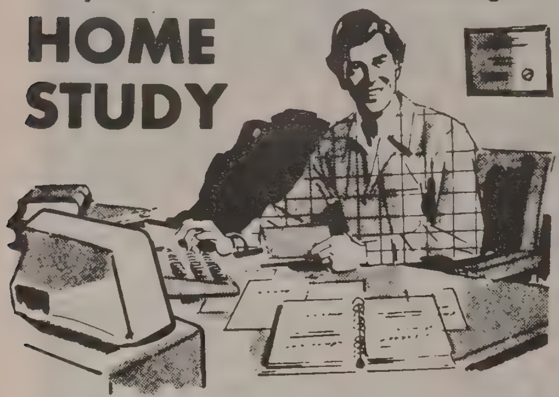

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Lynzie's Motherboard. (213) 650-6172. 300/1200/2400/9600 8-N-1 24 hrs. Matching, group and private chat system, local social events. Sysop: Lynzie Flynn

The Alternative BBS. (213) 439-7044. Programmer and user forums. UP/DL. Serious PC enthusiasts or professionals only please.

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The Backroom BBS. (213) 920-2113. 300/1200/2400/9600 8 bit 24 hrs. Very Mac, also Apple II and MS/DOS. WWIV v4.0 software. Supporting WOCMUG, CSPG and MACPAC. Sysop: Byte Knight.

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216

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312

Feminist BBS. (312) 383-2059. 300/1200 24 hrs. Lively discussion, everyone welcome. Michelle Frost.

408

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Byte Bandits of America. (408) 374-3974. 300/1200 24 hrs. Free. MS-DOS Sysop: Sam C. Brown

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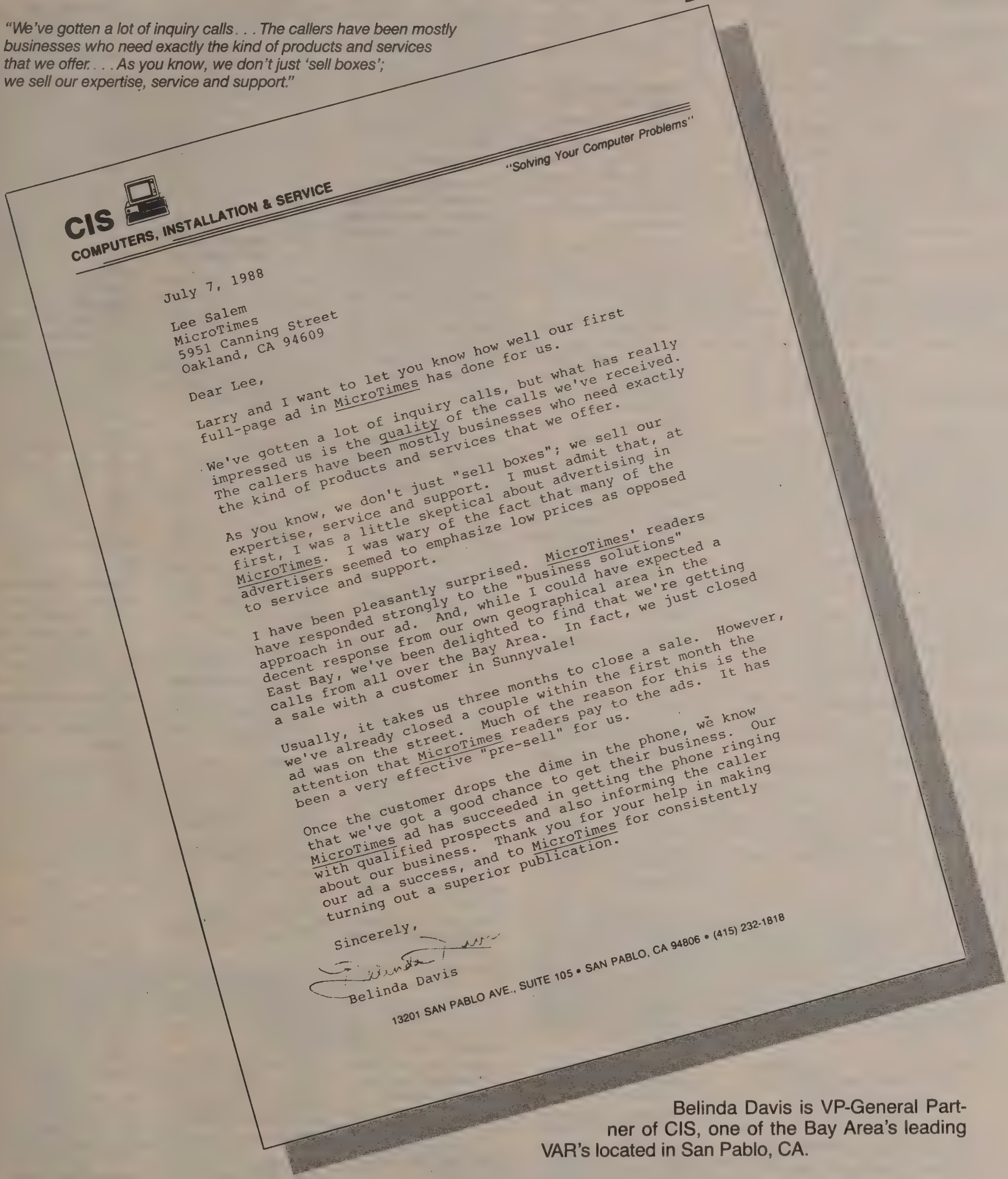

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Sincerely,

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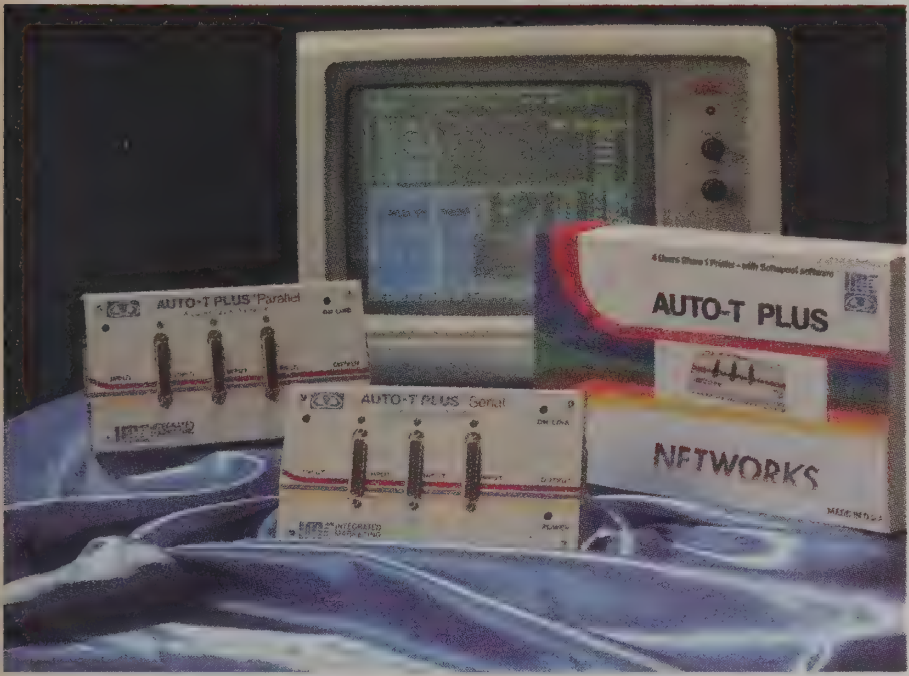
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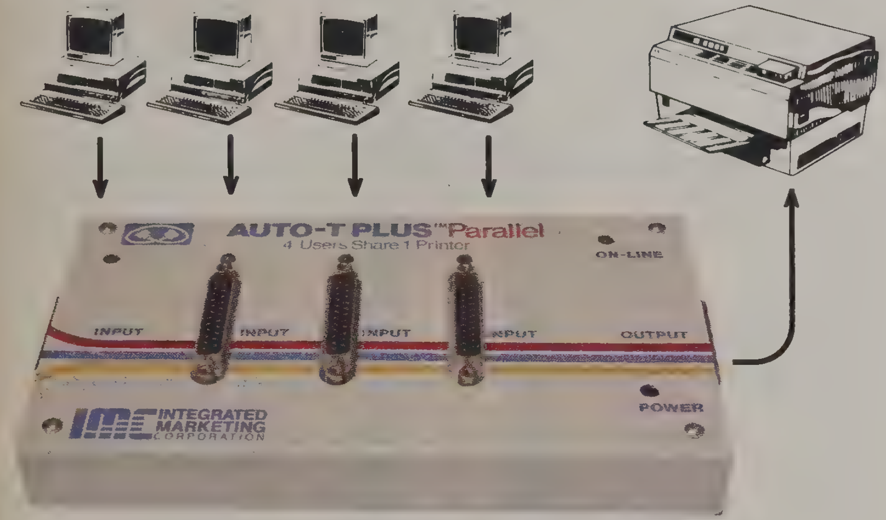
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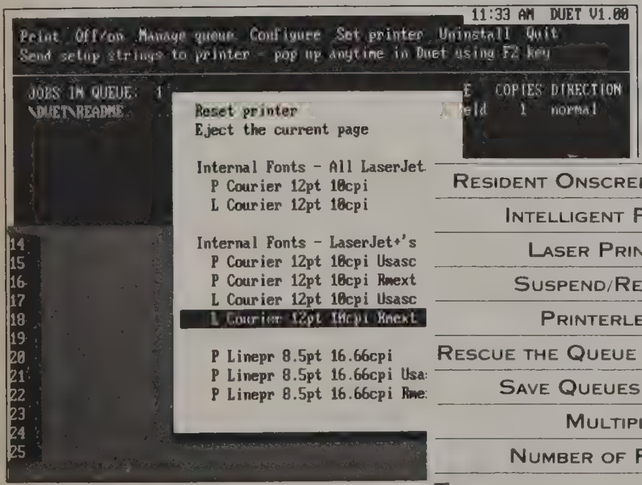

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                                                  11:33 AM  DUET V1.00
Print  Off/on  Manage queue  Configure  Set printer  Uninstall  Quit
Send setup strings to printer - pop up anytime in Duet using F2 key

 JOBS IN QUEUE:  1                                  E   COPIES DIRECTION
 \DUET\README          Reset printer                eld    1   normal
                       Eject the current page

                       Internal Fonts - All LaserJet
                         P Courier 12pt 10cpi
                         L Courier 12pt 10cpi

14                     Internal Fonts - LaserJet+'s
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16                       P Courier 12pt 10cpi Rmext
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Phoenix Landing BBS. (916) 966-8243. 300/1200/2400. Macintosh oriented but many other computers are supported. File areas for Mac and other computers. Supports echomail conferences including ECHOMAC and BAYMAC.

Hackney's Hideout BBS. (916) 961-1042. 1200/2400 8-N-1. Includes AT&T users conference. Sysop: Rich Hackney.

Night-line Network Central. (916) 331-5043, 300/1200, 8:00 PM to 8:00 AM daily. Forum for individuals, clubs and organizations that want to network nationally with others. Sysop: Eric Thomas.

ASSOCIATIONS

Realtor Microcomputer UG (RUG). Meetings: 4th Thurs. 7 PM Pasadena BOR, cnr. Orange Grove & Los Robles, Pasadena, CA.

Computer Professionals for Social Responsibility. Meetings: Most third Wed. 7:30 PM UCLA. CPSR/LS focuses on computer system risk and reliability and on privacy and civil liberties issues.

Atari Computer Assoc. of Orange County (ACAOC). Meetings: 2nd. Sun. 1 PM Rancho Santiago College, Phys Ed. Bldg., Rm. W-101,Santa Ana.

California Educational Computing Consortium CCCE. For information write Herb Garrett, Long Beach City College, 4901 E. Carson Street, Long Beach, CA 90808.

USER GROUPS

AMIGA

Amiga Friends. Meetings: 3rd Sun. Rancho Santiago College, Rm R-124, 17th & Bristol, Santa Ana. Call for current meeting info: (714) 775-7237 (24 hrs.) or write: P.O. Box 4186, Huntington Beach, CA 92605.

Bits & Pieces Amiga Group of Anaheim. Meetings: each Tues. 6:30-10 PM 1130-A North Kraemer Blvd., Anaheim, CA. DOS Classes, tech. help & more. BBS: (714) 630-8897.

Amiga Users Group of Long Beach. Meetings: 3rd Sun. 1-4 PM Mid-Cities Nat'l Bank, NE corner Lakewood & Artesian, Bellflower. We have a class that meets the second Sat of each month,1 to 4 pm. Something different every month

Pacific Computer Club. Meetings: 2nd Thurs. 7 PM 391 S. Madison, Pasadena, CA.

South Orange Commodore Klub (SOCK). Meetings: 3rd Saturday 9:00 A.M. Union Savings, 23688 El Toro Road, El Toro, CA. For Commodore 64/128 users and Amiga users. One-hour general meeting is followed by separate group meetings for each.

Amiga Special Interest Group. Meetings: 1st Sunday except holidays. Chapman College, 333 N. Glassell, Orange, CA. Amiga SIG is part of the North Orange County Computer Club, a thousand member organization together 12 years.

Bits & Pieces Amiga Group of Anaheim. Meetings: 1st & 3rd Sat. 10 AM—2 PM 1130-A North Kraemer Blvd., Anaheim, CA. Sponsored by Transnational Electronics. BBS: (714) 630-8897.

AMSTRAD

AMSTRAD User Group, U.S.A. Meetings: 4th Tues. 7 PM & 8 PM Venice High School, 13000 Venice Blvd. Since Sears dropped the PCW8256, group formed so users/owners can support each other.

APPLE

Original Apple Corps. Meetings: 2nd Sun. 12:00 Noon 3rd Floor Community Room, Santa Monica Mall. First Apple group ever. SIGs for AppleWorks, Telecomm, Educators, Macintosh. Call Fred Duffy at (213) 396-5515.

Tri-City Apple Users Group. Meetings: 3rd Thurs., 7:00 PM, 50 N. Hill Ave., Pasedena. Call (818) 846-6682. Friendly Apple II experts.

ATARI

Santa Clara Valley Atari Computer Enthusiasts (SCVACE). Meetings: 1st Thurs. 7PM Mint Canyon Moose Lodge, 18000 W. Sierra Hwy, Canyon Country. 8-bit group. Atari ST special group now forming.

South Bay Atari ST Computer Club. Meetings: last Mon. 8 PM 15331 Praire Ave. Lawndale.

Atari Computer Association Of Orange County. Meetings: 2nd Sun. Rancho Santiago College, Room W101, Santa Ana. BBS: (714) 540-7378.

Atari Computer Association of Orange County. Meetings: August 14, September 12,.1:00 PM, Rm. W-101, Phys. Ed. building, Rancho Santiago College, Santa Ana. Support for the users of the Atari ST and Atari 400/800/XL/XE computers. Contact Bob Brodie, (213) 691-0107.

Pasadena Area Local Atari Computer Enthusiasts (PALACE). Atari 8-bit and ST support. Chris Roberts, (818) 359-1697, 220 N. Encinitas Ave., Monrovia, CA.

COMMODORE

OKOK Computer Users Group. Meetings: 2nd Wed. 7-9 PM Altadena Public Library, 600 E. Mariposa. Call (818) 794-3243. Serves, Osborne, Kaypro, Commodore C128, PCs and compatibles and both MS-DOS and CP/M operating systems.

Bits & Pieces Commodore Computer Group of Anaheim. Meetings: each Tues 6:30 PM 1130-A N. Kraemer Blvd. (Kraemer & La Palma), Anaheim. Offers public domain software, demonstrations, interactive training on your computer. $33 annual dues.

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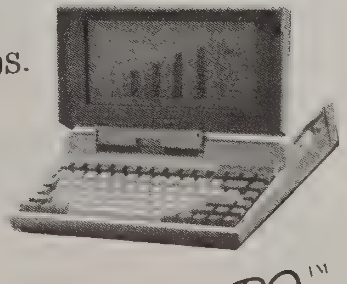

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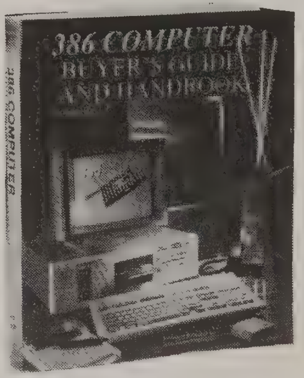

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Orange County Commodore Technical Users Group (C-TUG). Meetings: 4th Sun. 10:30 AM Mercury Savings & Loan, 4th & Newport, Tustin, CA. Newsletter; 2 BBS's; door prizes; SIGs in Comal; DOS protection data bases; wpros; & BASIC. Custom software, ROM chips.

South Orange Commodore Klub (SOCK). Meetings: 1st Wed. 7 PM Laventhol & Horwath, Exec. Conf. Rm.7th Fl., 3699 Wilshire Blvd., LA, CA.

Pacific Computer Club. Meetings: 2nd Thurs. 7 PM 391 S. Madison, Pasadena, CA.

Pasadena Commodore Computer Club. Meetings: 1st and 3rd Weds. 7:00 PM Circadian Room, Pasadena City College Cafeteria. Colorado Blvd & Hill, Pasadena. Call (818) 447-2212 after 2:30 PST or write P.O. Box 163, Arcadia, CA 91006.Supports C64 and 128 machines.

South California Commodore Users Group. Meetings: 3rd Tuesday each month, 7:00 P.M., MidCities National Bank, Lakewood and Artesia Blvds., Bellflower, CA.

South Orange Commodore Klub (SOCK). Meetings: 3rd Saturday, 9:00 A.M., Union Savings, 23688 El Toro Road, El Toro, CA. For Commodore 64/128 users and Amiga users. One-hour general meeting is followed by separate group meetings for each.

dBASE

Valley West dBASE Users Group. Meetings: 3rd Mon. 7:00 PM Blue Cross Of California, 21555 Oxnard St., Woodland Hills. Call (818) 343-9033 or write P.O. Box 16971, Encino, CA 91416.

DEC

DECUS Rainbow Pacific PC-LUG. Meetings: 2nd Wed. 7:00 PM Digital Equipment Corporation, 6101 W. Centinela, Ave., Culver City. Digital Equipment Computer Users Society. Free to DEC users. Call Karen Danforth (818) 787-8736 or write P.O. Box 2278, Van Nuys, CA 91404.

EPSON

San Fernando Valley Epson QX User Group. Meetings: 3rd Tues. 7 PM Fallbrook Sq. Comm. Rm., Fallbroook Mall, 6633 Fallbrook Ave. Canoga Park.

IBM AND COMPATIBLES

OKOK Computer Users Group. Meetings: 2nd Wed. 7-9 PM Altadena Public Library, 600 E. Mariposa. Call (818) 794-3243. Serves, Osborne, Kaypro, Commodore C128, PCs and compatibles and both MS-DOS and C/PM operating systems.

Kern Independent User Group. Meetings: Write Kern Independent PC User Group, P.O. Box 2780, Bakersfield, CA 93303.

Long Beach IBM Users Group. Meetings: 3rd Wed. 7 PM Woodruff Medical Plaza, 3816 Woodruff Ave., Room A, Long Beach.

Pacific Computer Club. Meetings: 2nd Thurs. 7PM 391 S. Madison, Pasadena, CA.

Pasadena IBM Users' Group. Meetings: 3rd. Wed. CalTech, Bridge Bldg., Rm. 201.

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South Bay Users Group (SBUG). Meetings: 1st Sun. Mercury Savings, Long Beach, CA.

Technical Users Group (TUG-NET). Meetings: Call for info (818) 882-6045. BBS (818) 882-6045.

The IBM & Compatibles User Group (ICUG). Meetings: 4th Thurs. 6:30 PM or 7:30 CAL Lutheran Univ., 60 W. Olsen Rd., Thousand Oaks. Group is 5 yrs. old & has 150 members Meetings begin at 6:30 for beginners, 7:30 regular members.

Calsonic PC Club. Meetings: 1st Tues. 5:15 PM 9 Holland, Irvine, CA.

PC*UG Computer Club. For Hughes Aircraft Employees. Call (213) 334-3422.

TRS Nybblers. Meetings: 1st Wed. 7 PM 2006 W. Magnolia, Burbank. Supports MS-DOS, CP/M, IBM or IBM clones.

Orange Coast IBM PC User Group. Meetings: last Sat. 9 AM Science Hall, Orange Coast College, Costa Mesa, CA.

Saddleback College IBM-PC Users Group. Meetings: 3rd Sat. Room 210, Business and General Science Building, Saddleback College, Mission Viejo. Call Susan Gordon at (714) 582-4650.

Kenny's Computer Club. Meetings: Each Saturday 8:00 A.M. to No 1133 Locust St. Apt. 19, Long Beach, CA. For those with an interest in graphics, DTP, Lotus, Autocad, games, databases and word processing.

Greater South Bay User Group. Meetings: 3rd Thursday, 7 P.M., Fellowship Hall, Christ the King Lutheran Church, 2706 W. 182 St., Torrance, CA. Bulletin Board, library and newsletter are featured services.

The Southern California K-Man Users Group. Meetings: 1st Wednesday, 7:00 P.M., Laventhol and Horwath, Executive Conference Room, 7th Floor, 3699 Wilshire Blvd., LA. Demo of the month features new software and hardware.

Long Beach IBM Users Group. Meetings: 3rd Tuesdays. 7 PM, Woodruff Medical Plaza, 3816 Woodruff Ave., Room A, Long Beach. Contact: Jim Wells.

Orange County IBM PC Users Group. Meetings: 2nd Thursdays 7:30 PM. Bradford Retirement Community Center, 1180 N. Bradford, Placentia. Meetings feature guest speakers on hardware and software topics related to the interest of our members. Other activities include sharing tips and problems, access to club library and a club newsletter. Call: Mike Lyons, 2114 W. LaPalma, Anaheim, CA 92801. (714) 774-3236.

South County PC Users Group. Meetings: 3rd Sat. 9 AM Great American Savings, 23688 El Toro Rd., El Toro, CA.

KAYPRO

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LEADING EDGE

Leading Edge Computer User Group of Ventura County. Meetings: 2nd. Sat. 10 AM Camarillo Library, 3100 Ponderosa Dr., Camarillo, CA. Lectures on hard/floppy disk usage; program demos; beginner classes. Single: $20, couple $25.

MACINTOSH

MacValley. Meetings: 3rd Tues. 7:30 PM Burbank High School Cafeteria at Burbank Blvd. and Third St. Call Ruth Stever at (818) 848-1277 or write P.O. Box 4279, Burbank, CA 91503.

LAMG (Los Angeles

Macintosh Group). Meetings: Call (213) 278-LAMG or write 12021 Wilshire Blvd. #349, Los Angeles, CA 90025.

Original Apple Corps. Meetings: 2nd Sun. 12:00 Noon 3rd Floor Community Room, Santa Monica Mall. First Apple group ever. SIGs for AppleWorks, Telecomm, Educators, Macintosh. Call Fred Duffy at (213) 396-5515.

West Orange County Macintosh Users Group (WOCMUG). Meetings: Last Tuesday. F & M Bank in Rossmore Center, Orange County, CA.

California State University Macintosh Users Group. Meetings: California State University, Long Beach.

MacValley Users Group. Meeting: Tuesday, August 16, 7:30 PM. Cafeteria of Burbank High School, Burbank Blvd. and Third St., Burbank. 10 to 15 vendors will present their products at the Summer Vendor Faire. David Lagerson, (818) 998-5546. PO 4297, Burbank, CA 91503-4297.

SBAMUG (South Bay Apple Mac User Group) Meetings: Last Wednesday of each month, 7:30 PM, Ticor Title, 4240 Artesia Blvd., Torrance. Call (213) 316-7738

NETWARE

Orange County Network Users Group (OCNET). Meetings: 2nd Tues. Wyle Labs, Irvine CA. Open to users, consultants, all interested in NETWARE. Call Mark at (714) 955-0616

Netware User Group Los Angeles (LOSNET). Meetings: 2nd. Wednesdays. Welcomes consultants, CPA's, dealers and users interested in sharing information on NETWARE and related products. Call Fane, (213) 452-1335. 2716 Ocean Park Blvd, Santa Monica 90405.

OPEN SYSTEMS

Open Systems Accounting, So. Cal Users Group (OSASCUG). Meetings: 4th Wed. Wyle Labs, Irvine, CA. Users of Open Systems, Altos Accountant, CADO, & Rexon accounting software. Open to end users, dealers and consultants. Call Mark at (714) 955-1724.

OSAS Systems Users Group Los Angeles (OSASUGLA). Meetings: 1st Wednesdays. Welcomes consultants, CPA's, dealers, users and QI's interested in sharing information on OSAS and related products. Call Fane, (213) 452-1335. 2716 Ocean Park Blvd., Santa Monica 90405.

OSBORNE

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TANDY/RADIO SHACK

Los Angeles - Wilshire Color Computer Users' Group. Meetings: 2nd Sat. 12:30-5:30 PM Felipe de Neve Library's Comm. rm., 2820 W. 6th St., LA, CA.

South Bay Users Group (SBUG). Meetings: 3rd. Fri. Mercury Savings, 22939 Hawthorne Blvd., Torrance, CA.

TEXAS INSTRUMENTS

San Fernando Valley TI-99/4A User Group. Meetings: 2nd Wed. 7:30 PM Doctor's Conf. Rm., Sherman Oaks Hospital, 4929 Van Nuys Blvd. Call for info: (818) 248-9558.

SFV 99ers. Write: 2823 Sanborne Ave., La Crecenta, CA 91214.

TI Riverside UG. Meetings: Call for info: (213) 545-9581 or (213) 551-9454.

TI Users Group of Orange County. Meetings: 3rd Thurs. Peek Funeral Home, 7801 Bolsa Ave., Westminister. Call 633-7317.

TI Professional. Call (213) 397-9668.

LA 99er Computer Group. Meetings: 4th Wednesday, 7:15 P.M. Torrance Public Library, Torrance Blvd. at Madrona.

TIMEX/SINCLAIR

Timex-Sinclair Users Group. Meetings: 3rd Mon. 7 PM 11828 Jefferson Blvd., Culver City, CA.

Timex-Sinclair. Meetings: Call John W. Petersen (213) 545-9581 or George Kuby at (213) 551-9454. BBS: Grey Matter (213) 971-6260.

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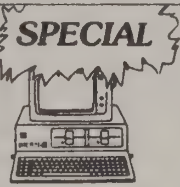

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MICROTIMES™

It is ironic that the quest for a UNIX standard is the subject of so much rancorous debate while the C standard has been achieved in an orderly and peaceable way.

K&R II seems to parody that of the first edition. In discussing how the sizes of C's numeric data types "short," "integer" and "long" vary from machine to machine, the first edition said simply: "...each compiler is free to interpret short and long as appropriate for its own hardware. About all you should count on is that short is no longer than long."

In K&R II this has become: "Each compiler is free to choose appropriate sizes for its own hardware, subject only to the restriction that shorts and ints are at least 16 bits, longs are at least 32 bits, and short is no longer than int which is no longer than long."

New students of C will find the examples in K&R II immensely helpful. These are by and large the example programs of the first edition rewritten to conform to the ANSI standard. The new edition gives the authors an opportunity to catch up with the changes in style of the past ten years. (Indeed, by the time K&R I began to achieve a large audience at the beginning of this decade, it was already stylistically outdated.) In any event, the re-written examples offer an excellent snapshot of present day C usage.

For those who are already familiar with C, K&R II will be an invaluable resource for discovering how the ANSI C standard is related to the C language of the first edition of K&R. A separate appendix simply lists the differences, and the reference manual is now written for two voices. One reproduces faithfully in nice large type the current state of the ANSI specifications for C; the other, in a much smaller type face, presents the authors' (largely favorable) editorial commentary on the new Standard.

Since 1972 the fates of C and UNIX have been largely intermingled. UNIX would not be as popular as it is today if C had not attracted the attention of software developers. C would not be so attractive if it lacked either of the things UNIX provides: a stable multi-user environment for software development and utilities to make the programmer's job easier.

It is ironic that the quest for a UNIX standard is the subject of so much rancorous debate while the C standard has been achieved in an orderly and peaceable way.

Of course there are many possible causes for this state of affairs. It may be that languages are simply easier to standardize than operating systems. It may be that there is less money at stake in the creation of a C standard (it is certainly true that fewer hardware manufacturers are involved). It may even be that the language was designed well enough that its inventors can hand off the responsibility for maintaining the standard with little fear.

Certainly the development of a C standard has been conditioned by its inventors' attitude toward the further development of the language. This attitude was spelled out in a 1978 article in the Bell Systems Technical Journal co-authored by Ritchie, Kernighan, S.C. Johnson, and M.E. Lesk:

"What is not likely is a fundamental change in the level of the language. Realistically, the very acceptance of C has compelled changes to be made only most cautiously and compatibly. Should the pressure for improvements become too strong for the language to accommodate, C would probably have to be left as is, and a new language developed. We leave it to the reader to speculate on whether it should be called D or P." □

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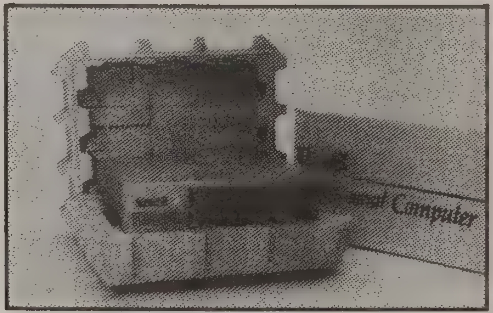

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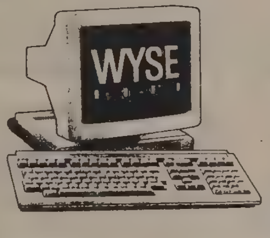

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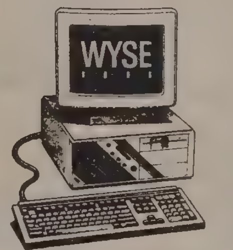

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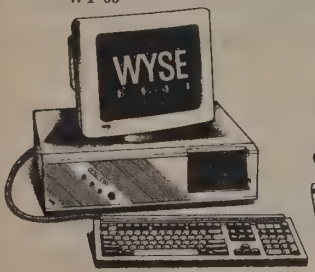

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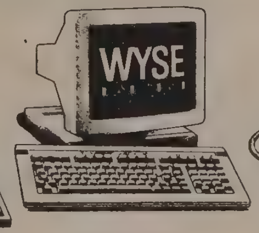

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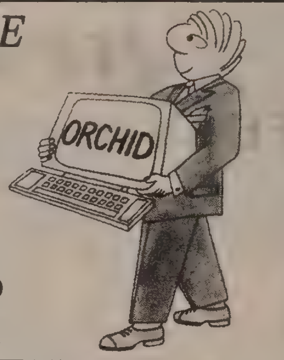

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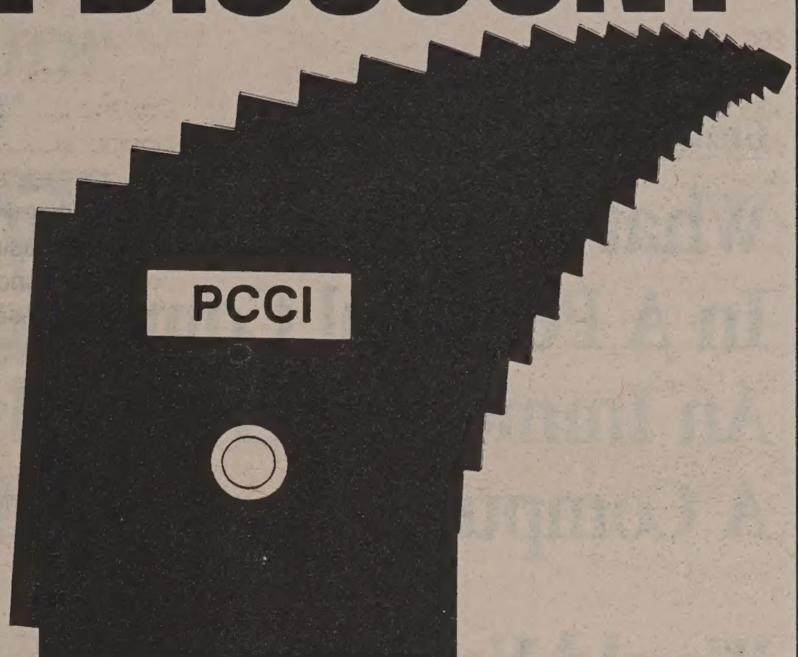

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Great Issues of the 21st Century:

What DO Women Want In A Personal Computer? An Immodest Proposal Or A Computer For Bimbos?

Would Your Mother Buy This Concept?

By John C. Dvorak

Once in a while, a great letter comes along that needs public discussion. The following letter from A. Jesse Ivanhoe, a talented engineer from Venice, CA, exhibits these characteristics. I find his comments interesting and his idea worth a public discussion. My question to the readers: Are his ideas and observations realistic or simply sexist? Comments are welcome only if you personally predict what it would take to get more women interested in computers. — JCD

Dear Mr. Dvorak:
I particularly enjoyed your column in the May issue of *MicroTimes* saying farewell to the Mac and regretting the retreat of computers from non-business uses.

I've been feeling that way for a long time. In fact, I strongly believe that it's time for a clever computer manufacturer to go after the really big consumer market — the one that has been foolishly neglected for 10 years. Mitch Kapor, founder of Lotus software, understands this. On a recent TV interview he said that the next most successful genre of software would be what would make women want to use a computer. And the next important breakthrough in computers will also be what makes women want to use them.

Give women something meaningful to do with a computer and they'll buy computers by the tens of millions!

Studies show that women are extremely interested in self-improvement. They annually buy millions of self-help and how-to books, tapes and videos. But computers are much better than books, tapes or videos because a computer can interact and personally direct and measure a user's behavior. This is certainly much more desirable than the mere generalities of a self-help book. Self-help software can replace self-help books, tapes and videos — an immense potential.

The point is: If you want masses of women to use computers, give them a low-priced, simple, lap-top computer in designer colors and lots of self-help, how-to software, and call it the "total self-help computer way of life." Tens of millions of self-help computers and software would be sold.

The so-called Personal Computer may have been personal when Wozniak and Jobs invented it, but it rapidly became just an intelligent work station for business. Even Apple had to finally surrender and go full force into business usages, as you bemoan in your column. This failure to make the computer a popular home electronic item was caused by a total void of meaningful software for personal consumer use.

Women won't use those immense overly powerful, overly costly non-portable business oriented PCs. They will, however, go wild for a small, portable computer looking like a pocketbook that they can easily carry around, and that looks fashionable and makes them appear chic. And it must be low priced. And they must have available to them an abundance of self-help, how-to software.

The self-help computer can be low cost because it needs very little memory. Self-help software is fed in sequentially as the user progresses. The calculations to score the user's attitudes and behaviors are simple and are stored in small files on the disk. The crystal display need only be a few lines, since everything is done in words. The concepts conveyed back and forth verbally are what is essential, not wild or fancy graphics.

The components are widely available so that any clever company presently producing computers or software is in an ideal position to break open and dominate this vast new field. It just needs to grab the ball and run with it!

So far as producing the self-help software: Using my background in the behavioral sciences, I have developed an expert AI method for creating interactive self-help software. I could train a cadre of behavioral scientists (on a small advance plus royalty basis) in my methods and have 20 self-help programs available by the time the "self-help computer" has been designed, produced and is ready for sale. Then go on to create dozens of new self-help software each year. (There are hundreds of past and present self-help and how-to books, whose ideas are public domain, which could be the cores for an endless array of software.)

The marketing of the "feminine computer," with a batch of self-help software, would be through book retailers to go full force after the millions of self-help book, tape and video purchasers, all currently buying millions. After market acceptance, go hard into the electronic stores to make computers the consumer electronic item that they should be. Later on, a self-help computer designed for men could be offered plus software oriented towards both genders, also for self-education and entertainment.

Instead of spending the future endlessly cloning IBM's new products, a clever company has the opportunity to make an end-run into the consumer computer market that can be far bigger than all the PCs sold in the past 10 years.

I'm writing you all this because you've been around for a long time and have all sorts of industry contacts. I've written a number of companies, large and small, about these ideas, to no avail. You probably know a company that might find my ideas interesting. Please connect me with them and earn yourself an agent's commission.

Sincerely yours,
A. Jesse Ivanhoe, B.E.E., M.S.

Any gals out there wish to comment? Any venture capitalists wish to invest? Write me c/o MicroTimes. *— JCD*

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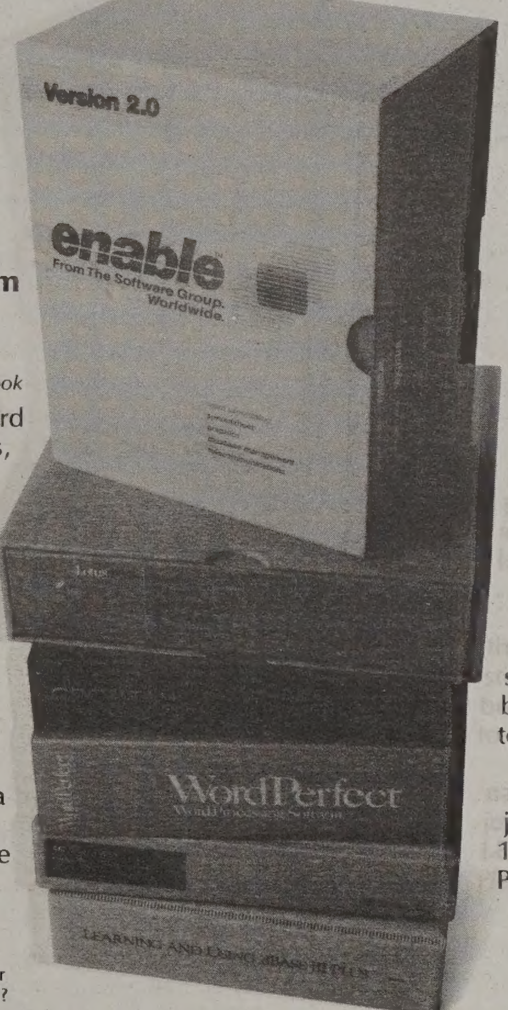
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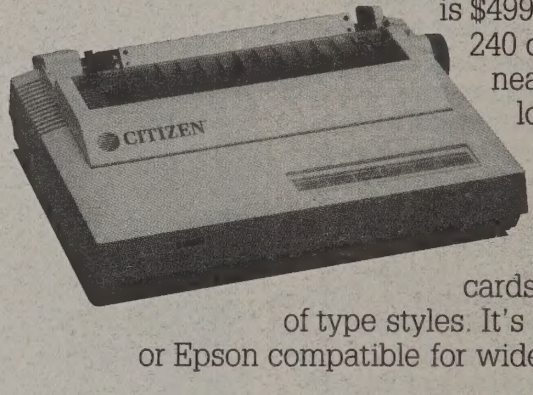

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